

LEARNING BY DOING



**REPORT OF THE NATIONAL REVIEW SEMINAR
ON WORK EXPERIENCE
(5-7 MARCH 1990)**



Department of Vocationalization of Education
National Council of Educational Research and Training
New Delhi

First Edition
March - 1991
Vaisakha - 1913

PD-3 T

© National Council of Educational Research and Training, 1991

**Published at the Publication Department by the Secretary, National Council of
Education Research and Training, Sri Aurobindo Marg, New Delhi-110016 and
printed at J. K. Offset Printers, 315, Jama Masjid Delhi-110006**

FOREWORD

Learning is the process of acquiring, assimilating and internalizing cognitive, motor and behavioural inputs for their effective and varied use when required. In this sense learning is a liberating process rather than a conditioning process. Learning by doing, as opposed to learning by rote, forms a person's character and develops the whole man. It is in this context that the programme of Work Experience, recommended by the Education Commission (1964-66) and other normative policy documents that have been published, gains special significance. Purposeful and meaningful manual work organized as an integral part of the learning process not only leads to skill formation but also makes education relevant by linking it to productivity.

Although Work Experience or Socially Useful Productive Work activities have been introduced in the school curriculum in almost all the States, the implementation to be effective still requires constant monitoring and proper direction. This report of the National Review Seminar is yet another attempt by the Department of Vocationalization of Education of the NCERT towards strengthening the programme of Work Experience and shaping it according to the national guidelines. The report provides an authentic account of details in regard to Work Experience implementation and a set of well considered recommendations.

It is hoped that it will be a useful document for all those interested in Work Experience as a concept and will provide valuable guidelines to those interested in its implementation.

I am grateful to Prof. Arun K. Mishra, Head, Department of Vocationalization of Education and his colleagues for organizing the Seminar. Mention should also be made of Dr. Manjit Sen Gupta, Reader in Education and The Programme Coordinator who planned and conducted the Seminar and later compiled and edited the manuscript of the report to bring it to the present form. Thanks are also due to all the participants of the Seminar for their valuable contributions.

New Delhi
August, 1990

DR. K. GOPALAN
Director
NCERT,

PREFACE

Linking education to productivity was visualized by the Education Commission (1964-66) as one of the important means of achieving educational transformation leading to national development. In this context the Commission recommended the introduction of Work Experience as an integral component of general education which can forge this link by providing the future citizens a variety of experiences in real work situations thereby inculcating in them self-confidence, initiative, creativity and a spirit of social service. The National Working Group on Vocationalization of Education (1985) also stressed the importance of Work Experience programme in the school curriculum. The NPE 1986 reiterated the concept of Work Experience and stressed inter alia the introduction of prevocational programmes at the lower secondary stage which will facilitate the choice of vocational courses at the higher secondary stage

Based on the national recommendations Work Experience or Socially Useful Productive Work has been included as a curricular subject by almost all the states. Appreciating the importance of this practical subject, the Department of Vocationalization of Education of the NCERT has constantly been following the progress of its implementation, thereby giving it proper direction through providing guidelines, conducting orientation programmes, developing exemplar instructional materials and undertaking reviews and studies from time to time. The present National Review Seminar organized by the Department from 5 to 7 March, 1990 is one such effort for strengthening the programme by shaping it in accordance with the national guidelines and at the same time encouraging innovations as also Earn while you Learn programmes in this area having immense potential for experimentation

The Seminar was attended by fourteen state representatives along with a number of other experts and innovative implementors of Work Experience who had been invited individually. The report is divided into four parts. Part I gives an overview of the proceedings of the Seminar. It, in addition presents the recommendations on various issues and problems which have been arrived at through their in-depth analysis undertaken during the Seminar. Part II provides the State Reports dealing with the present status of implementation of Work Experience in respective states, Part III includes theme papers and reports of some innovative experimentations whereas part IV presents few institutional success stories.

I believe that 'Learning by doing', the Report of the National Review Seminar on Work Experience, will serve as a useful reference material. With this in view it is being published in the present form.

PREFACE

Linking education to productivity was visualized by the Education Commission (1964-66) as one of the important means of achieving educational transformation leading to national development. In this context the Commission recommended the introduction of Work Experience as an integral component of general education which can forge this link by providing the future citizens a variety of experiences in real work situations thereby inculcating in them self-confidence, initiative, creativity and a spirit of social service. The National Working Group on Vocationalization of Education (1985) also stressed the importance of Work Experience programme in the school curriculum. The NPE 1986 reiterated the concept of Work Experience and stressed inter alia the introduction of prevocational programmes at the lower secondary stage which will facilitate the choice of vocational courses at the higher secondary stage.

Based on the national recommendations Work Experience or Socially Useful Productive Work has been included as a curricular subject by almost all the states. Appreciating the importance of this practical subject, the Department of Vocationalization of Education of the NCERT has constantly been following the progress of its implementation, thereby giving it proper direction through providing guidelines, conducting orientation programmes, developing exemplar instructional materials and undertaking reviews and studies from time to time. The present National Review Seminar organized by the Department from 5 to 7 March, 1990 is one such effort for strengthening the programme by shaping it in accordance with the national guidelines and at the same time encouraging innovations as also Earn while you Learn programmes in this area having immense potential for experimentation.

The Seminar was attended by fourteen state representatives along with a number of other experts and innovative implementors of Work Experience who had been invited individually. The report is divided into four parts. Part I gives an overview of the proceedings of the Seminar. It, in addition, presents the recommendations on various issues and problems which have been arrived at through their in-depth analysis undertaken during the Seminar. Part II provides the State Reports dealing with the present status of implementation of Work Experience in respective states, Part III includes theme papers and reports of some innovative experimentations whereas part IV presents few institutional success stories.

I believe that 'Learning by doing', the Report of the National Review Seminar on Work Experience, will serve as a useful reference material. With this in view it is being published in the present form.

I am grateful to all participants of the Seminar for their contributions

I place on record my appreciation for the very serious and untiring efforts in planning and conducting the Seminar put in by Dr M Sen Gupta, Reader in Education and the Programme Coordinator. I am thankful to Dr Sen Gupta for compiling and editing the manuscript of the report and bringing it to the present form. I also acknowledge the cooperation received from all my colleagues in the Department.

ARUN K MISHRA
Prof & Head
Department of
Vocationalization of Education
N C.E.R.T.

August, 1990

CONTENTS

PART I PROCEEDINGS OF THE SEMINAR

- Introduction
 - Background
- Historical Perspective
- Work Experience Programme—an overview
- Outcomes of Work Experience
 - Educational
 - Social
 - Vocational
- Objectives of the Seminar
- Participants
- Agenda for the Seminar
- Details of Sessions
- Summary of Recommendations

PART II STATE REPORTS

- An overview of implementation
 - * Andhra Pradesh
 - *Gujarat
 - *Haryana
 - *Himachal Pradesh
 - *Kerala
 - *Madhya Pradesh
 - *Maharashtra
 - *Orissa
 - *Pondicherry
 - *Punjab
 - *Rajasthan
 - *Tamilnadu
 - *Uttar Pradesh
 - *West Bengal
 - *Navodaya Vidyalayas

PART III : THEME PAPERS AND REPORTS OF INNOVATIVE EXPERIMENTATIONS

- Innovative Practices in Work Education and Work Education in Teacher Education Programme
- Some suggestions to improve Work Experience Programme at the Primary Level
- Mandal Vocational Education Centres
- Madhya Pradesh Experiment on Work Experience
- The Camp Life in the implementation of SUPW/WE Programme
- Successful implementation of Work Experience Programme

PART IV: INSTITUTIONAL SUCCESS STORIES

- Work Experience as practised in Demonstration School
- Work Experience in Matriculation schools
- Work Experience/Community Service Programme in Springdales School New Delhi.
- Work Education in West Bengal: Status Report and Findings of research.

PART V: APPENDICES

- Appendix I List of participants
- Appendix II Composition of Groups
- Appendix III Composition of suggested committees

PART : I

Proceedings of the Seminar

Introduction

Background

Education for a productive role is widely accepted to begin from the earliest stages of education. As early as in 1937, Wood and Abbott report on general and vocational education stated that "manual activities should find a place in the curriculum not because the pupils or some of them will earn a living by manual labour but because satisfaction of the desire to make or create is necessary to balanced development". Zakir Husain Committee on Basic Education also expressed similar views when it said "Modern educational thought is practically unanimous in commending the idea of educating children through some suitable form of productive work. Manual work forms a person's character and develops the whole man—body, mind, heart and spirit. It has disciplinary value for one's life and creates self-confidence, self-respect and self-reliance. It provides vast opportunities for initiative, creativity, cooperation and social service".

Psychologists are also of the opinion that productive manual work is extremely desirable because it relieves the child from the tyranny of purely academic and theoretical instruction against which its active nature is always making a healthy protest. Manual work done intelligently and not mechanically go to develop desired personal and social qualities which are conducive to a secular democratic society. Psychomotor skills thus developed provide the much needed pre-vocational orientation for smoother transition to the world of work.

In India, it was Mahatma Gandhi who suggested the idea of integrating work with education as distinct from mere introduction of work in education. The concept of Work Experience, as recommended by the Education Commission (1964-66) is essentially similar to the philosophy of Basic Education. It was, in fact described as a re-definition of Gandhiji's thinking in terms of a society launched on the road to industrialization.

The National Working Group on Vocationalization of Education (1985) also stressed the importance of Work Experience programme in the ten-year curriculum. It recommended that at the primary stage the Work Experience activities should develop an awareness of the world of work leading to the eventual development of the learner as a productive worker. At the middle stage children should participate in well designed production and service oriented projects for intensive skill

formation in a variety of work areas. At the high school stage pre-vocational programmes will be provided

The National Policy on Education (1986) reiterated the concept of Work Experience and viewed it as 'purposive and meaningful manual work, organised as an integral part of the learning process and resulting in either goods or services useful to the community'. The policy has, in addition, visualised 'pre-vocational programmes at the lower secondary stage' which will facilitate the choice of vocational courses at the higher secondary stage

As of today, Work Experience in actual practice concentrates either on knowledge thereby giving it a predominantly theoretical orientation, or on production alone giving it a factory orientation. Either of these situations negates the basic aims of introducing the subject into the school curriculum. In effect, Work Experience rightfully belongs to the school curriculum only if the learning outcomes from this subject fulfil the objectives of general education viz. all round development of the child's personality. This is possible only when each of the cognitive, psychomotor and affective aspects of the programme are properly balanced in a teaching-learning situation

Based on the national recommendations, Work Experience or Socially Useful Productive Work activities were introduced in the school curriculum in almost all the states. However, the programme implementation varies in its emphasis from state to state and institution to institution. The NCERT has always remained interested in following the progress of its implementation, giving it proper direction through providing guidelines and conducting orientation programmes for key functionaries, developing exemplar instructional materials and also undertaking reviews and studies etc. from time to time. To mention a few prominent ones, *a status study of Socially Useful Productive Work in India* (Sen Gupta, 1981)¹ was conducted to document and disseminate various Socially Useful Productive Work programmes being run in different States and UTs. The study highlighted the views of head of the institutions regarding the process and product of the SUPW programme and the types of activities undertaken by them. During April 11-13, 1983 a National Seminar on Socially Useful Productive Work was conducted to review the progress of its implementation. In a similar endeavour *a critical study of the 'Earn While You Learn' Programme of Madhya Pradesh* (Yadav, 1986)² was taken up to analyse it in terms of educational objectives and vocational goals

The present National Review Seminar on Work Experience, therefore, should be seen as a similar effort by the NCERT for strengthening the programme of Work Experience, shaping it in accordance with the national guidelines and encouraging innovations and studies in this area of immense importance if the child's mind is not to be furnished alone but fashioned as well

1. Sen Gupta, M., *Socially Useful Productive Work in India—A Status Study*, NCERT, New Delhi-1981
2. Yadav, D D, *Earn While You Learn Programme of Madhya Pradesh—A Critical Study* NCERT, New Delhi, 1986

HISTORICAL PERSPECTIVE

The concept of manual work as a tool of education was recognised long before the advent of formal education. In ancient India, when the students lived in ashrams with their gurus, they had to do every kind of manual work for living and learning. Education, as a matter of fact was related to the life of pupils, their actual needs and the dichotomy between education and work did not exist. It was education for life and through life.

With the introduction of formal education in this country, education became bookish and theoretical. It was meant for the elites and it prepared students for white-collared jobs. There was no provision of manual activity in general education. This shortcoming was pointed out in the Woods Education Despatch (1854) which contemplated the introduction of pre-vocational education at the secondary stage. But practically, no action was taken in this respect. Later Wood and Abbott (1937) also stressed the need of manual activities in education for the harmonious development of child's personality.

Deploping the ineffectiveness of bookish education, Rabindra Nath Tagore also emphasised the role of manual work in imparting all-round education.

Through the introduction of productive manual work and community life in educational institutions Mahatma Gandhi wanted to bring out a cultural renaissance in the country. He had the unique privilege of suggesting the idea of integrating work with education as distinct from mere introduction of work in education.

Endorsing the proposal made by Mahatma Gandhi that the process of education throughout this period (seven years) should centre around some form of manual and productive work, and that all the other abilities to be developed or training to be given to, as far as possible, be integrally related to the central handicraft chosen with due regard to the environment of the child, a resolution was passed at the Wardha National Education Conference in October, 1937.

Zakir Husain Committee (1938) on Basic Education also expressed similar views when it said "Modern educational thought is practically unanimous in commending the idea of educating children through some suitable form of productive work. This method is considered to be the most effective approach to the problem of providing an integral all-sided education".

Later developments led to the recommendations of Secondary Education Commission (1952-53) which wanted every high school student to choose one craft from the suggested list of crafts.

The Education Commission (1964-66) emphasised the role of education as a powerful instrument of social, economic and political change. The Commission concluded that one of the means of achieving educational transformation leading to national development was by linking education to productivity, and this link could be forged by introducing Work Experience (WE) as an integral part of general education. The Commission clarified that the concept of Work Experience was essentially similar to the philosophy of Basic Education as propounded by Mahatma Gandhi and it might be described as a redefinition of his thinking in terms of a

society launched on the road to industrialisation

Based on the recommendations of the Education Commission (1964-66) NCERT developed 'The curriculum for the ten years school - a framework' in the year 1976. This document provided guidelines for the implementation of the Work Experience programme at different stages of school education

This document was later reviewed by the Ishwarbhai Patel Committee (1977) which reaffirmed the Gandhian concept of socially useful productive work. The Committee recommended three phases in the teaching - learning process of socially useful Productive Work (SUPW) viz , a study of the world of work through observation and enquiry, experimentation with materials, tools and techniques, and work practice. The productive manual work situations were to be drawn from the areas of health and hygiene, food, shelter, clothing, culture and recreation and community work and social service

The concept and objectives of socially useful productive work as defined by the Ishwarbhai Patel Committee had been accepted by the Adisesiah Committee (1978) also for the +2 stage with minor adaptations

The National Working Group on Vocationalization of Education (1985) suggested a pre-vocational orientation for the lower secondary stage of education. For earlier stages, however, SUPW might assume the form of training in life-skill i.e. a variety of experiences in areas related to basic needs and providing exploratory experiences for personal use

The National Policy on Education (1986) reiterated the concept of Socially Useful Productive Work. It viewed Work Experience as purposive and meaningful manual work as an integral part of the learning process resulting in either goods or services useful to the community

Work Experience Programme —an Overview

Work Experience is viewed as ·

- Purposive and meaningful manual work
- Integral part of the learning process
- Resulting in goods or services useful to community
- Essential component at all stages of education

Work Experience Programme·

- Brings in coordination of hand and brain
- Applies problem solving method
- Develops learning by doing
- Involves all teachers and specialised personnel

Work Experience includes

- Exploration of the world of work

- Experimentation with technical means
- Participation in productive work/work practice
- Community service

Work Experience is essential for :

- Well integrated personality
- Vocational readiness
- Productive efficiency
- Modernization of society
- Activity oriented education

Work Experience programme is done through

- Well structured and graded programmes
- Essential activities to be performed by all schools
- Elective activities selected as per the needs of the students and community

Work Experience programme requires

- Decentralized curriculum planning
- Continuous evaluation
- Self learning instructional materials
- Flexible time scheduling

Work Experience activities,

- Conform to needs, interests & abilities of learner
- Increase in skill level to match the stage of education
- Help in smoother transition to the world of work
- Are suggestive and not prescriptive

Work Experience to be successful requires

- Openness and freedom
- Good community-school relationship
- An enlightened head of the institution
- Imaginative planning and cooperative implementation

Outcomes of Work Experience

Educational

- 1 to develop understanding of facts and scientific principles involved in various forms of work
- 2 to know the sources of raw materials, understand and develop skills for the selection, procurement, arrangement and use of tools and

materials for different forms of work through observation, manipulation and work practice.

3. to develop skills for the application of problem-solving methods in productive work and social service situations.
4. to develop respect for manual work, regard for manual workers, proper work ethics and innovative use of creative faculties.

Social:

1. to develop an awareness of social problems and understanding regarding the utility of productive work and services to the community
2. to inculcate socially desirable values such as self-reliance, helpfulness, cooperativeness, team-work, perseverance, tolerance etc

Vocational:

1. to help in smoother transition to the world of work
2. to inculcate a predisposition to the selection of a particular vocation for a majority of students.

Objectives of the Seminar

1. to discuss problems in acceptance and implementation of the Work Experience programme.
2. to formulate guidelines for successful implementation of the programme in future.
3. to share experiences and exchange ideas on giving the Work Experience programme a pre-vocational focus

Participants

The Seminar was attended by 43 participants. They included Chairmen and officers of Boards of Secondary Education, Directors of State Councils of Educational Research and Training/State Institutes of Education, senior administrators of the Directorates of Education, experts and innovative implementors from Demonstration Schools of NCERT, Navodaya Vidyalaya Samiti, Work Experience Teachers Association, Municipal Corporation of Delhi, Shantivanan, Ramakrishna Mission and other voluntary organizations. In addition to the above, the faculty members of the Department of Vocationalization of Education of NCERT also participated in the Seminar.

The participation to the Seminar was quite impressive as fourteen states and Union Territories sent their representatives. Besides, there were experts, invited individually to the Seminar, to share their views and experiences. The list of participants is presented in Appendix I.

Agenda for the Seminar

- Registration and Welcome
- Presentation of status reports on the implementation of Work Experience
- Presentation of theme papers and reports of innovative experimentations
- Discussion on making the Work Experience programme a success in schools.
- Suggestions and recommendations.

The presentations to touch upon issues and problems like

- i. Personnel for implementation/implementation mechanism.
- ii. Types of activities offered in schools.
- iii. Response of students to WE programme
- iv. Teachers involved in WE programme
- v. Institutional infrastructure
- vi. Curriculum and instructional material development
- vii. Orientation and training of teachers
- viii. Any other issue

Details of Sessions

The Opening Session

The opening session of the Seminar began with a welcome address by Dr (Mrs) S.P. Patel, Professor in Education. This was followed by self-introduction of the participants.

Dr. M. Sen Gupta, Reader in Education and Coordinator for the Seminar then gave a brief account of the programme to follow. He acquainted the participants with the background of the Seminar, its objective and agenda, schedule of presentation of State and theme papers, group discussion procedures, etc.

The formal business of the Seminar commenced with the presentation of Status Reports on the implementation of Work Experience/Socially Useful Productive Work programme in different States/UTs immediately by the respective state representatives. The Status Reports are reproduced in Part II of this Report

Session II

Dr. K. Gopalan, Director, NCERT addressed the participants during the post-lunch session. In his address the Director stressed the importance of Work Experience for the total development of the child's personality. He emphasised that the programme could be implemented better if more effective teacher training programmes were undertaken. He underlined the need for concentrating on non-monetary inputs in the programme and here he called for innovative spirit on the part of teachers.

Prof. Arun K. Mishra, Head, Department of Vocationalization of Education

and Programme Director for the Seminar, informed the participants that the NCERT has already come out with 22 volumes of exemplar instructional material on Work Experience. These are useful both for students and teachers. He pleaded that Work Experience be given the momentum of a 'movement'. Continuing, Prof. Mishra recalled that Work Experience was basically meant to improve the total teaching—learning process in schools, and as such should help in the overall achievement of children. Prof. Mishra requested the state participants to take evaluative studies to prove that Work Experience promoted achievement, employability and helped in building better attitudes in children. Concluding he laid particular emphasis on dissemination of ideas relating to Work Experience right upto the grassroot level.

Rest of the session was devoted to the presentation of status reports by the official representatives from different states.

The status reports of the following states were presented by the speakers mentioned against each .

01. Andhra Pradesh	Dr I V Radha Krishna Murty
02. Gujarat	Shri S M. Baria
03. Haryana	Shri N.D.Batra
04. Himachal Pradesh	Mrs. Shanti Dua
05. Kerala	Shri M.K Thirumoni
06. Madhya Pradesh	Mrs. Kamla Johri
07. Maharashtra	Shri V S Pharande
08. Orissa	Dr P.C. Mahapatra
09. Pondicherry	Shri B Venkataramani
10. Punjab	Shri Mohan Singh Wadhwa
11. Rajasthan	Dr P.L Verma
12. Tamilnadu	T. Sri Ramachandran
13. Uttar Pradesh	Shri UN Mishra
14. West Bengal	Prof (Dr) Pijush Kanu Das

In addition to the above mentioned status reports from State/U.T. representatives, Dr. M.P.Chhaya, Educational Consultant to the Navodaya Vidyalaya Samiti gave a detailed account of the Work Experience activities undertaken by Navodaya School students—both within and outside the school timings. Dr Chhaya in his presentation cited several examples of essential and elective Work Experience activities drawn from all the areas of human need which are practised by students in Navodaya Vidyalayas. The essential activities are intended to result into basic attitudinal changes towards work and development of life skills on the part of the students whereas the elective activities aim at the learning and mastery of skills of productive work.

Session III

In the morning session theme papers were taken up. Four of the six papers related to reports of innovative experimentations like Mandal Vocational Training

Centres of Andhra Pradesh, Camp life from Rajasthan, 'Earn while you Learn' programmes of Madhya Pradesh and Kerala. The ball was set rolling by the paper Innovative Practices in Work Education and Work Education in Teacher Education Programme presented by Dr. N.P.Banerjee from Vinaya Bhavana, Shantiniketan. Dr. Banerjee established, on the basis of research findings, that Work Experience inculcates in students the work cult, develops in them preparedness for vocational and self employment training and also develops in others a higher order of preparedness for professional education.

Another significant finding came from Shri P.N.Rusia based on his experiences of implementing 'Earn While You Learn' experiment in Madhya Pradesh. He, on the basis of facts and figures, clearly established that students and teachers could be motivated towards productive work by providing them with some monetary incentives. Such work not only helps the child financially but also improves school attendance, reduces drop-out and enhances their achievement in other scholastic areas.

The theme papers presented to the Seminar are reproduced in Part III of this Report

Session IV

The afternoon session was devoted to five institutional success stories. Two of these were from Demonstration Schools (NCERT) situated at Ajmer and Mysore and one each from Mahatma Montessori Matriculation Higher Secondary School, Madurai, Springdales School, New Delhi and P.G.B.T. College, Rahara (West Bengal). The Institutional Success Stories are included in Part IV of this Report

Towards the later part of the session the participants were divided into two groups for preparing recommendations on assigned issues. Composition of the groups may be seen in Appendix II. Group I discussed the following items

- Personnel for implementation/implementation mechanism
- Types of activities offered in schools
- Response of students to WE programme
- Evaluation and any other issue

Group-II deliberated on rest of the issues viz

- Teacher involvement in WE programme
- Institutional infrastructure
- Development of curriculum and instructional material
- Orientation and training of teachers.

Session V

The work in this session started rather early because a field trip to Springdales School had been arranged for giving the participants coming from different parts of the country a feel of Work Experience activities in Delhi. They witnessed

students working on various productive and service-based activities, talked to students and teachers and also saw products prepared by them under the Work Experience programme. After the field trip the rest of the morning session was utilised to consolidate and finalise the group recommendations by the respective groups

Session VI

In this final session of the Seminar, the Group Leaders of the two groups namely Shri N.K. Chaudhary for Group I and Shri J.M. Srivastava for Group II, presented their Group Recommendations to the whole group. Each recommendation was carefully debated upon and finally adopted unanimously. Later on, a few participants gave their impressions about the programme.

Summary of Recommendations

The status papers presented by the state representatives and the discussions established that the programme of Work Experience was being implemented in various states with varying degrees of success. It has been implemented under different nomenclatures such as Socially Useful Productive Work, Craft, Work Education, Life Oriented Education, Vocational Education at the school level. By and large, the programme implementation has been far from satisfactory, in spite of the policy support and the strength of pedagogical foundations on which it stands.

Keeping the above in view, the Seminar made the following broad recommendations:

1. General

In order to develop proper attitudes and work habits, desirable values and techno-scientific skills thereby inculcating in students a predisposition to the vocational world, it is recommended that *a definite structure be given to the Work Experience programme as applicable to different stages of education* so that it leaves less scope for varied conceptual interpretations and the programme renders itself more implementable than at present.

2. Personnel for implementation/Implementational Mechanism

For successful implementation of the Work Experience programme proper planning is absolutely essential. This requires a well-organised and coordinated system at various levels to implement the Work Experience programme effectively. In view of the innovative nature of the programme it is recommended that *committees and Work Experience cells be formed at each level viz national, state, district and school*. (Composition of the suggested committees may be seen in Appendix III)

To ensure better coordination and continuity it is further recommended that

these committees should work for both Work Experience and vocationalization of education at respective levels.

3. Types of Activities

Success of any Work Experience programme depends largely on careful and purposeful selection of activities for achieving the intended objectives. It is therefore recommended that *essential and elective productive activities based on the local needs and resources be undertaken for primary, upper primary, secondary and higher secondary levels as per the National Guidelines circulated by the NCERT*

4. Time allocation for Work Experience is recommended as follows:

<i>Primary</i>	9 pds /week
<i>Upper Primary</i>	6 pds /week
<i>Secondary</i>	6 pds /week
<i>Higher Secondary</i>	6 pds /week

5. Response of Students

Response of students to the Work Experience programme depends mostly on the adequate and timely availability of trained teacher, infrastructural facilities like space, tools, equipment etc , raw materials and a positive will on the part of the school administrators. It is recommended that *at least threshold facilities for undertaking productive and service based Work Experience activities in schools be provided on a priority basis for creating a work ethos in the schools*

6. Institutional Infrastructure

It is recommended that *adequate funds be made available to meet the expenditure of executing Work Experience programme in schools*. Although, the Seminar felt that the amount would vary according to the programme undertaken and the size of the school it recommended *the following minimum amounts required:*

	<i>Recurring</i>	<i>Non-Recurring</i>
a) <i>Primary Stage</i>	<i>Rs 5/- Per capita per year</i>	<i>Rs 1,000/- per school</i>
b) <i>Upper Primary</i>	<i>Rs 15/- "</i>	<i>Rs 3,000 "</i>
c) <i>Secondary</i>	<i>Rs 20/- "</i>	<i>Rs 5,000/- "</i>

7 Teacher for Work Experience

While Work Experience is the collective responsibility of the entire school faculty, in order to develop the desired skill orientation it is recommended that *one or two properly trained teachers be appointed in each middle and secondary school not only to develop specific skills but also to co-ordinate the Work Experience activities in the school and to establish rapport with the community*

Involvement of vocational teachers, wherever available will be useful. Provision of part-time teachers for imparting specific skills from time to time will go a long way in improving the situation.

In the context of teachers for Work Experience, it is also recommended that Work Experience should form an important integral component of pre-service and in-service teacher education programme

8. Work Experience Exhibitions

For wider publicity as well as disposal of finished products, it is recommended that *district, state and national level exhibitions on Work Experience be organised and awards/incentives given to teachers and students for best performance*

9. 'Earn While You Learn' Programme

It is recommended that *'Earn while you Learn' programmes under the Work Experience programme should be designed and executed for desirous and needy upper primary and secondary students.*

10. Evaluation

In order to attract better attention from both students and teachers it is recommended that *evaluation in the area of Work Experience should be continuous. It should take care of theory and practice in an integrated manner. More weightage should be given to the evaluation of actual practical work. The evaluation at the lower classes should be done internally but both internal and external evaluation should be conducted at the secondary level. Grades obtained by students should be shown on their performance records.*

11. School Complexes

For undertaking a variety of Work Experience programmes through sharing of facilities and exchange of teachers it is recommended that *School Complexes be organised and strengthened to enrich the Work Experience programme*

12. Reports of Innovative Achievements

It is recommended that *reports of innovative achievements in the field of Work Experience should be periodically compiled and circulated for ventilation and encouragement.*

13. National Review Seminars

The Seminar overwhelmingly recommended that *National Review Seminars should be held half-yearly every year*

14. National Work Experience Day

The Seminar recommended that *the 2nd of October every year should be*

observed as 'National Work Experience Day'. Similarly the 30th of January should be observed as 'Blood Donation Day' every year.

15. *Inter-state visits*

It is recommended that exchange programmes for various levels of Work Experience functionaries should be organised from time to time on an inter-state basis which will go a long way in motivating, convincing and innovating in addition to bringing-in uniformity and national integration

The seminar concluded with Prof. Arun K. Mishra seeking cooperation from all the states in making the Work Experience programme in schools a success. He assured them all possible help from the NCERT. Finally, the Seminar came to an end with a vote of thanks proposed by Dr. M. Sen Gupta, the Programme Coordinator.

•

PART - II

State Reports

•

An Overview of Implementation

The historical perspective given in earlier pages clearly shows that the importance of the element of work in education has been recognised in Indian education right from the beginning. But its actual implementation has till today remained weak and erratic

The state status reports presented in this seminar are encouraging in the case of states like Andhra Pradesh, Kerala and Rajasthan. But not so encouraging in others like Himachal Pradesh, Haryana and Municipal Committee of Delhi Schools. In pursuance of the NPE 86 and consequent to the introduction of 10+2+3 system of education, Work Experience as a curricular area has made its presence felt, but due to several reasons like examination and result dominated psyche of teachers and students; lack of funds for infrastructural facilities such as working and storage space, raw materials, tools and equipment and near absence of a work cult in the 'educated community' the subject, inspite of its inherent potentialities has remained ornamental in actual practice.

The reports indicated that in almost all the states (except in Pondicherry), syllabi for the subject have been drawn and in many of them handbooks, guidebooks or activity books have been prepared. Kerala and Maharashtra have gone in for phased implementation of the programme, consolidating the gains in the process. In most states the planning has been for universal implementation.

Statewise highlights of the implementation are as follows:

Andhra Pradesh

- Introduced socially useful productive work in all the schools in a phased manner from 1979-80.
- Started vocational courses in classes VIII-X in selected schools from 1983-84 onwards.
- Created centralised training facilities in Mandal Vocational Education Centres.
- Teachers and teacher educators given orientation.
- Curricula in WE revised.

Gujarat

- Activities have been selected for both urban and rural areas.
- Major activity areas included under WE are.
 - * Health and physical fitness
 - * Food
 - * Shelter
 - * Clothing
 - * Culture and recreation

Haryana

- WE is a compulsory subject for all classes.
- It is internally examined but students' performance in WE is reflected in the certificate awarded by the Board.
- Actual implementation in schools is weak
- The Directorate, SCERT and Board all are involved in the implementation of WE.

Himachal Pradesh

- 'Earn while you Learn' scheme is being run in 300 schools
- WE is internally examined.

Kerala

- Work Experience Programme implemented in selected schools from 1970 onwards
- At the high school stage vocational bias has been given to the programme
- A five-point programme has been implemented in schools having no specially trained WE teacher
- An elaborate 'Earn while you Learn' programme implemented
- Seminars, exhibitions and on-the-spot competitions on WE are organised every year at different levels.
- Pre-vocational courses introduced in schools.

Madhya Pradesh

- WE is an integral component of general education up to class X.
- Response of students to WE programme is not very satisfactory.
- Schoolwise competitions related to WE are organised at different levels.

Maharashtra

- Elementary school curriculum has been revised to include WE
- Two handbooks on WE prepared.

Orissa

- WE is conducted in schools through essential and elective activities.
- Teacher training curriculum includes training in WE as well.
- Evaluation is internally done but performance is reflected in the progress report/certificate

Punjab

- SUPW is a compulsory subject from classes I to X
- Emphasis in teaching is on practical work
- Services of WE teacher, vocational master, drawing teacher, home-science teacher, teachers for agriculture, music, tailoring etc are utilised for the purpose.
- WE is internally examined and cumulative record of each student is maintained.

Rajasthan

- WE is compulsory for all regular students of classes IX and X
- Participation in SUPW programmes is compulsory for being eligible to appear at the secondary school examination.
- SUPW activities are organised both within and outside the school (5-day camps)
- Monetary incentives are given to schools for best performance in SUPW.
- SUPW fee of Rs 20/- is charged from each student

Tamilnadu

- In place of WE, schools have voluntarily offered the 'Chief Minister's Scheme of Life oriented education'.
- It is internally examined at the school level

Uttar Pradesh

- WE has been introduced in schools alongwith many other extra curricular activities
- More than 20,000 teachers of 6000 secondary schools have been oriented in different WE activities

West Bengal

- Work Education is a compulsory subject
- From 1984 onwards 11 project areas are offered in 'Madhyamik Pariksha'.
- Work Education is examined both internally as well as externally

A detailed account of implementation of the WE programme in the participating states and U.Ts are presented in the following pages as given by the respective state representatives.

Andhra Pradesh

DR IV RADHA KRISHNA MURTY
PROFESSOR, CURRICULUM AND
TEXTBOOK DEPARTMENT
SCERT (AP) HYDERABAD

Introduction

In Andhra Pradesh craft as a subject was introduced in all the schools prior to the Ishwarbhai Patel Committee Report in the year 1977. Different activities were organised based on the infrastructural facilities available in schools. One craft teacher for each high school was also sanctioned. The Government of Andhra Pradesh accepted the recommendations of the Review Committee and introduced Socially Useful Productive Work in all the schools in phases from 1979-80. In the first phase of implementation, teachers' training programme was organised in 1978-79. Subsequently detailed syllabus was prepared and introduced in schools in a phased manner viz: Classes I and II in 1979-80, III to V in 1980-81, VI and VII in 1981-82 and VIII in 1982-83. With a view to extending the programme to all the schools up to the X standard through an appropriate and realistic plan, the Government of Andhra Pradesh constituted a committee under the chairmanship of Sri V R. Reddy on 5th March, 1983. The committee consisted of experts from different fields including a nominee from the NCERT. The committee submitted its report to the Government in 1983-84 which contains suggestions for the implementation of the programme from Classes I to X. Further action on the recommendations of the committee could not be taken because of the change in Government. The then Government wanted to introduce vocational education at high school stage. Accordingly, steps were taken for introduction of vocational education from classes VIII to X. This was done during 1983-84 for Class VIII, during 1984-85 for Class IX and during 1985-86 for class X.

The list of courses introduced under vocational education are as follows:

1. Knitting, garment making, laundry and darning
2. House wiring and repair of domestic electrical appliances.
3. Radio, transistor receiver and TV-repair and servicing.
4. Farm machinery repair and servicing and general mechanism
5. Composing, printing and book-binding
6. First-aid, general medicare, nutrition and medical store management
7. Poultry
8. Pisciculture
9. Horticulture including floriculture
10. Sericulture
11. Wood Work and cabinet making (carpentry)

These vocational courses were introduced in 345 high schools in place of Work Experience/Socially Useful Productive Work. 20 per cent of the time was allotted for these courses. In all other high schools and primary and upper primary schools, SUPW/Work Experience programme has been continued. The activities undertaken under this programme are as follows.-

- 1 Preparation of phenyl and detergent powder
- 2 Preparation of paper covers and greeting cards
3. Preparation of face cream, vaseline and tooth powder
- 4 Clay models and making dolls
- 5 Preparation of chalk pieces and fountain pen ink
6. Book-binding
7. Preparation of squashes and jams
- 8 Running school canteen
- 9 Stitching and knitting work

Orientation Programmes

About 1000 teachers were given orientation in the Socially Useful Productive Work at the rate of about 50 teachers per district. The Teacher Educators of TTIs and B Ed. colleges were also given orientation in SUPW

Pre-service Training Course

Almost all the universities in the state have introduced SUPW, Community Service, NSS in the pre-service training curriculum and some weightage to these activities is also given in internal assessment.

Instructional Material

A booklet giving details of the concept, objectives, activities etc of Socially Useful Productive Work was printed and supplied to all the teachers and teacher-educators in the State

N.P.E.-1986

Based on the programme envisaged in NPE-1986 and the detailed guidelines prepared by the NCERT, the Government of Andhra Pradesh has decided to introduce Work-Experience programme in all classes from I to X (except in the schools and classes where vocational education was introduced) in a phased manner starting from the academic year 1990-91. A detailed curriculum for Work- Experience for classes I to X has been prepared based on the NCERT guidelines. It is also envisaged to prepare teachers' handbooks for classes I to X

गुजरात

श्री एस एम बरीआ
रीडर

स्टेट इंस्टीट्यूट आफ एजुकेशन
अहमदाबाद-गुजरात

प्रस्तावना

कार्यानुभव कार्यक्रम की विषय वस्तु का चयन छात्रों की कक्षा और आयु को ध्यान में रखकर किया जाता है। छात्रों की रुचि और आवश्यकता को अधिक महत्व दिया जाता है। साथ ही कार्यानुभव की शिक्षा से समाज की आवश्यकताएँ पूर्ण होती हैं या नहीं इसका ध्यान रखकर कार्यानुभव की प्रवृत्तियों को शिक्षा में समाविष्ट किया जाता है।

इन प्रवृत्तियों से बच्चों में व्यक्तिगत मूल्य, सज्जता, समाजसेवा और परिश्रम के प्रति निष्ठा जाग्रत करने का आशय रखा गया है। इनसे बच्चों को बिना उपयोगी या निरर्थक चीजों से उत्तम चीज बनाने की नई दृष्टि मिलती है। बच्चों में नव सर्जन की वृत्ति पैदा होती है और समाज में उन चीजों की माँग उठने से साहस की वृत्ति बढ़ती है।

गुजरात राज्य में शालेय अभ्यासक्रम में 20% समय कार्यानुभव की शिक्षा के लिए रखा गया है। इसी समय में कार्यानुभव शिक्षा के लिए विभिन्न प्रवृत्तियों का सुनियोजित कार्यक्रम बनाने के बाद बच्चों में-तंदुरुस्ती, पर्यावरण-स्वच्छता, सुशोभन की दृष्टि, और कार्य की दुनिया की पहचान व उनके सर्वांगीण विकास के लिए विभिन्न प्रवृत्तियाँ की जाती हैं।

गुजरात राज्य में कार्यानुभव की शिक्षा निम्नलिखित प्रवृत्तियों के माध्यम से दी जाती है :-

1. तदुरुस्ती और आरोग्य
2. आहार
3. आवास
4. पोशाक
5. सांस्कृतिक और मनोरंजन
6. समूह कार्य और मनोरंजन

उपरोक्त प्रवृत्तियों से बच्चों के विचार व व्यवहार में परिवर्तन लाया जाता है। यह प्रवृत्तियाँ बच्चों की आयु और कक्षा को ध्यान में रखकर आयोजित की जाती हैं।

बच्चों में इच्छित परिवर्तन लाने के लिए प्रवृत्तियों के बारे में मार्गदर्शन की अधिक जरूरत है और यह कार्य शिक्षक ही कर सकते हैं। शिक्षक को इन प्रवृत्तियों का पूर्ण ज्ञान होना आवश्यक है। नई शिक्षा नीति के संदर्भ में शिक्षकों को कार्यानुभव की शिक्षा दी गई है लेकिन पूरे ढंग से सभी शिक्षकों में हम यह बात बना नहीं सके। हमारी एस.आई.ई. द्वारा कुछ सेमीनार आयोजित कर शिक्षकों को कार्यानुभव के विचार को समझाने का प्रयत्न किया जाता है। लेकिन राज्य में पूरे शिक्षक समाज को यह काम नहीं दिया गया। फिर भी ट्रेनिंग कालेजों में इस विषय को सिखाया जाता है और नये शिक्षक जब पाठशाला में आते हैं तो कुछ अच्छा कार्य देखने को मिलता है।

गुजरात में बहुत सा इलाका ग्रामीण है। ग्रामीण इलाके की परिस्थिति कुछ भिन्न होने से वहाँ की प्रवृत्तियाँ ग्रामीण इलाकों के अनुरूप चुनी जाती हैं। ग्रामीण बच्चों की अपनी पुरानी आदतों को बदलने और वहाँ की निरर्थक चीजों को उपयोगी बनाने की दृष्टि से शिक्षकों की जिम्मेदारी और बढ़ जाती है।

मूल्यांकन

इन प्रवृत्तियों का मूल्यांकन सतत किया जाता है। मूल्यांकन के लिए प्रवृत्तियाँ दो हिस्सों में बांटी जाती हैं :-

1. उत्पादन कक्षा प्रवृत्तियाँ
2. सेवा कक्षा प्रवृत्तियाँ

मूल्यांकन सैद्धान्तिक और प्रायोगिक होता है--प्रतिपाद प्रगति पत्रक में इसकी माप की जाती है। यह प्रक्रिया सभी कक्षाओं में की जाती है। गुजरात राज्य में कार्यानुभव की शिक्षा माध्यमिक कक्षा से बढ़िया - प्राथमिक और अपर प्राथमिक कक्षा में दी जाती है। माध्यमिक कक्षाओं में जहाँ उद्योग शिक्षकों की सुविधा है वहाँ

अच्छी तरह चलती है। जहाँ उद्योग शिक्षक नहीं हैं वहाँ यह प्रवृत्तियाँ ठीक तरह नहीं चलती। जबकि प्राथमिक कक्षाओं में यह प्रवृत्तियाँ बहुत अच्छी तरह चलाई जाती है। प्रवृत्ति को अधिक अच्छे बनाने के प्रयत्न किये जाने चाहिए।

Haryana

SHRIND BATRA

HES(I), OFFICER INCHARGE

SCERT, HARYANA (GURGAON)

Introduction

In Haryana, Work Experience (W.E.) has already been made an integral part of the school curriculum and a student has to offer it as one of the subjects. At present there is no external examination in this curricular area and the evaluation is done at the institutional level for public examination classes i.e. class VIII, class X and class XII. Grades of students are sent to the Board of School Education, Haryana and these are entered in the certificates awarded to the successful candidates but these do not count towards the division.

It has been observed that in a number of schools, the teaching and learning of the subject exists in name only. Neither teachers nor students are taking this subject seriously mainly because of its non-examination character. Time has come to rectify the mistake. We can no longer afford to ignore such a vital subject based on activities. Even the malaises and the mal-practices of the existing system of examinations are well known. Examination of today has started losing its sanctity. The total school curriculum is already too heavy and bookish in character. So serious thinking has to be given to find the right type of alternative means of assessing students' performance, particularly in the subject of WE/SUPW. At present we emphasise continuous internal evaluation.

Content of Work Experience

Content of WE is determined by (1) needs and the developmental level of children at different stages of education (2) The needs of their families and the community. (3) The resources and facilities available for WE activities in the school and the neighbourhood. Since the above three parameters are different, WE content continues to be different at different stages of education, in different areas and in different schools in the same area. Thus flexibility is the key word in developing a relevant and meaningful programme of WE for a school. The selection of actual Work Experience activities depends upon the resources and

facilities available in a school, the needs of the children, their school and community and the level of development especially manual reached by the children. Care is taken to ensure the selection of a variety of WE activities from all areas of basic human needs as these help in developing self-reliance in them, as also discover their interest and aptitudes for different types of work.

Management

At the state level an officer of the rank of Deputy Director, in the office of Director, Secondary Education Haryana, Chandigarh looks after the work of WE programmes being run in the state. All administrative aspects, including grants and other related infrastructure needed for effective implementation of WE programmes in the state are sanctioned by the DSE.

The Board of School Education Haryana, Bhiwani does the evaluation work in WE. It also prepares the WE syllabus for middle/high/secondary level classes in consultation with the agencies i.e. NCERT, New Delhi, SCERT Haryana, Gurgaon.

A SUPW cell has been created in the state in SCERT, Gurgaon. The cell is headed by a Class I officer with supporting staff. The cell:

- i. prepares guidelines and instructional material for teachers/students.
- ii. prepares syllabi of WE from primary to higher secondary classes.
- iii. conducts seminars/in-service training programmes for teachers of all categories at the Block/Sub-Division/District levels and also in SCERT, Gurgaon.

The cell so far has prepared:

- i. teachers' guide for primary classes and supplied it to the JBT teachers.
 - ii. manuscripts for teacher guides for classes VI to VIII in collaboration with NCERT, New Delhi.
 - iii. hand book for Socially Useful Productive Work at +2 stage and supplied it to almost all senior secondary schools/colleges.
- hand-book containing some useful electronic experiments/projects like eliminator, power supply, transistor receivers etc. for students of +2 level. The hand-book is under print.

District/Sub-Division authorities have been directed by the DSE Haryana to see that during the periods allotted and shown in the school time table for SUPW/WE, only WE subject is taught.

At the institutional level, the selection of activities is done on the basis of:-

1. needs of the children and school, mental and physical level of children.
2. availability of raw material.
3. availability of expertise.
4. infrastructure requirements :- Workshop/room, tools/machinery

- and funds, etc.
5. all the schools are directed to select at least two activities belonging to different areas of WE i.e health & hygiene, food, shelter, clothing, cultural and community services.
 6. high/secondary schools are provided with a grant of Rs. 250/- per year.

Himachal Pradesh

SHANTI DUA
INCHARGE V CELL
SCERT, SOLAN (H P)

Introduction

Work Experience was introduced in the schools of Himachal Pradesh during the early 60's. At that time it was a very popular subject and was meant for classes I to X. It was compulsory for all students and was also an examination subject. It had internal assessment, practical examination and viva-voce for class X and marks for it was 100. The main crafts were wood work, agriculture, needle work and tailoring. For upper primary classes home science and kitchen gardening were also examination subjects. In primary classes clay-modelling, paper work and needle work were the crafts. Even in JBT and B.Ed classes there was craft and examination for this subject was held along with internal assessment.

Later it was continued in every stage, but as a non-examination subject having internal assessment under the name 'Work Experience'. After a few years the new name SUPW was given to this subject, but there was no examination or internal assessment for this subject. In 1986 a new scheme "Earn while you Learn" was introduced. This scheme is very useful to students, teachers and for school. This scheme is going on only in 300 schools. State Government gave Rs. 2,000/- to each school in the beginning to buy raw material. SCERT gave orientation to teachers of these schools according to government instructions. Trades covered under the scheme are chalk-making, candle-making, envelope and file cover making, patra making (wood-work), and caning of steel furniture. In the schools where this scheme is running DEOs/BEOs buy the material produced and supply to different schools of that area. Schools undertake mending of chair seats and backs from government offices and earn money. Out of this money some amount is given to those students who mend them, some amount is given as incentive to the concerned teacher and a portion is retained by the school.

Today, Work Experience programme is run in different 'Houses' in schools. In this programme students are preparing embroidery items, fruit preservation items, knitting items and stitching work, decorative items, etc. All these things are displayed during the school annual day function in an exhibition for sale. This type of work is also successful and students are earning some money. With the help of this money they buy books or some items for their education.

Teachers and Teacher Training

In JBT schools and in B.Ed classes two crafts (one major and one minor) for each student are compulsory. These are internally assessed and mentioned in the marksheet.

In primary classes activities under-clothing, shelter, food, hygiene and health, clay-work and paper work were introduced under Project II in 300 schools, but now these activities are going on in almost all primary schools. In primary schools JBT teachers who teach other subjects teach crafts as well. Under the WE programme students clean their classrooms, surrounding area, black-boards, etc. Beautification of school campus is also one of the activities.

In almost all the upper primary and high schools there are teachers knowing Work Experience. Some craft teachers are also working in this area.

Response of students

Response of students to Work Experience is very good. Change is the law of nature, so along with studies they welcome creative work which fulfils their emotional need. They learn many things which prove useful in their future life. After completing high school, some students do not go for higher education. So they can start working on their own and earn some money.

Instructional Material

SCERT prepared many booklets to guide the teachers at different levels of learning. These were on fruit-preservation, needle work and tailoring, knitting, wood-work, doll making, repair of sewing machine, chalk making etc. These booklets were distributed to upper primary and high school teachers. Many orientation programmes were organised to give practical training in WE to all categories of teachers. Under 'Earn while you Learn' scheme SCERT gave training to teachers in trades like caning, chalk making, envelope and file cover making, patra making in wood-work, etc.

Difficulties Faced

Problems which hinder the progress of WE are: (1) There is no proper accommodation for conducting WE activities (2) It is a non-examination subject; so neither the head nor the teachers are interested in introducing it in school (3)

Lack of funds for running this scheme (4) Owing to the heavy work load of other subjects, it is neglected.

Suggestions for improvement

Undoubtedly, it is a very good programme for developing states like HP. The occupation of the people of this state is mainly farming. There are orchards of stone fruit which is perishable. So activities like food preservation and fruit processing are very useful. The traditional trades are spinning and weaving. Chamba embroidery and chappals are very famous. Knitting of beautiful socks is very famous in Kullu. This trade is very useful from the point of tourism. Bamboo items are also very popular in the state. Therefore, it is essential to start bamboo work in schools. Bee-keeping is a common trade in rural areas as there are a lot of wild flowers. So it can also prove useful to our students. Most people are living in scattered villages in hilly area and their standard of living is very low. Activities that can be helpful to them are . repair of domestic appliances, electrical gadgets, repair of cycle and scooter, wood-work, tinning, painting and varnishing, cottage industry - Detergents, ink, candle, gum etc., tailoring and garment making, plumbing work, dry cleaning and dyeing, saloons (Hair cutting), electrical fitting etc. Alongwith the activities which are going on in schools the suggestive activities if implemented, will prove more effective and useful. The State School Board must take steps in this direction. It should be an examination subject so that the heads, teachers and students take real interest in its implementation.

Kerala

SHRI M K THIRUMENI

SPECIAL OFFICER

WORK EXPERIENCE PROGRAMME

STATE INSTITUTE OF EDUCATION

KERALA

Introduction

On the basis of recommendations of the Education Commission, the "Work Experience Programme" was implemented in some selected schools of the state from January 1970 onwards. Till 1976, the programme was implemented in 173 high schools and 176 upper primary schools. Due to sustained efforts of the last 14 years, special programmes are now going on in 3378 upper primary and lower

primary schools and 2002 high schools. In the remaining upper primary and lower primary schools, a five point programme has been implemented.

Considering the cost of equipment, raw materials, personnel and lack of knowledge about the action points etc., it was not considered prudent to start the scheme in all the schools simultaneously. It was felt wise to introduce it in a phased manner from the academic year 1969-70, to cover the entire state in a reasonable period. So it was decided to implement the programme in a small number of schools in the first instance.

Accordingly, a few secondary schools were chosen for the implementation of the programmes from January 1970. There were schools where diversified courses existed earlier and therefore facilities for workshop practice or agricultural practices were already available. A few schools where craft work and hobbies were practised were also included. Some of the high schools situated within the easy walking distance from junior technical schools also were covered. Thus, with about 86 high schools and 20 junior technical schools as the nucleus, the programme of Work Experience was started in the state.

The aims of the programmes are:-

1. to link education with life,
2. to link subjects with work, and
3. to make education work oriented

Thus it is attempted to integrate work and education at all levels. The fulfilment of these aims is carried out from lower classes to higher classes. In the lower primary and upper primary stages the first two aims find prominence and the third one at the high school stage.

In the primary stage, we are not giving practice to pupils in one trade or one process. The aim is to give practice in multi-trades and multi-processes. The use of tools and skills imparted are employed in activities that will help the pupils in learning subjects (as a learning method) and the teachers can identify "Work Experience" in various topics of the subject (as a teaching method). By employing Work Experience as a teaching method, work can be integrated with education and get rooted in the curriculum of education.

In the high school stage the pupils are given practice in one trade with a view to give a vocational bias, with a forward look technologically.

Seminars for headmasters, craft teachers and general teachers were held and the concept was explained to them. A series of training courses were also conducted for the general teachers and craft teachers for effective implementation of the programme.

Activities and Implementation

The activities and points regarding implementation of the scheme are given below:-

Lower Primary Schools

1. to clean seats, benches, class rooms and surroundings
2. to pick up all dried leaves and other wastes lying in the school compound and collect them in compost pits.
3. to make models with clay.
4. To make broom sticks and other useful articles with available resources.
5. use of pen-knife, pencil cutter, scissors to cut out figures and paper geometry figures.
6. paper folding and paper crafts
7. To cover a book, to make envelope, etc.
8. kitchen gardening, flower gardening, growing plants, use of hand fork, shovel, etc., watering of plants.
9. to introduce hand tools of every day use like screw-driver, hammer etc
10. needle work, thread patterns etc

Upper Primary Schools

Workshop practice is given to students in basic engineering trades such as carpentry, fitting (bench work), sheet metal work and electrical wiring. Workshops were set up and technical instructors having Diploma in Engineering (Mechanical and Electrical) were appointed in 115 schools. The craft teachers in those schools were also trained in basic engineering trades for a duration of 30 weeks and appointed to assist the technical instructors. The primary teachers and craft teachers were trained in various areas for implementation of programmes such as cardboard work, book binding, fishnet making, agriculture, cycle assembling and repair, plastic cane work, coil work, clay modelling, making of file boards and office covers, black board dusters, plaster of paris moulding, chalk making, making of teaching aids.

Guide books have been prepared for core subjects for providing the guidelines for correlated teaching.

During 1975-76 Work Experience programme was made compulsory and the following five point programme was introduced in all schools where there were no specially trained teachers for Work Experience programme.

1. cleaning and sanitation work.
2. beautification of the school building and premises.
3. agriculture.
4. preparation of teaching aids
5. craft work using clay, cardboard etc

High school classes (Std VIII to X)

In high school classes, the areas covered are . wood-work, fitting, moulding, sheet-metal work, welding, electrical wiring, repair and maintenance of domestic

appliances, electronics, typewriting, horticulture, printing, book-binding, home-science, cutting and tailoring, commercial painting, photography, fruit preservation, silk screen printing, coir craft, fibre extraction and fibre products.

Allocation of time

Work Experience programme

Standard I and II

4 periods/week

" III and IV

2 periods/week

" V to VIII

2 periods/week

Pre-vocational courses

Standard IX

3 periods/week

Standard X

2 periods/week

Socially Useful Productive Work

The SUPW programme has been implemented in the state as 'Earn while you Learn' programme. It is not a compulsory item, but is aimed to create productive situation within the school. The production is taken up out of school hours and during holidays. Rolling capital and equipment are provided by the Department. Intensive practical training has been given to the teachers by the Work Experience Unit of the State Institute of Education, Kerala. Detailed instructions regarding the process of manufacture, source of raw materials, registers to be maintained, attendance of students and guiding teachers, selling price, sharing of profit etc are given by the Department. The profit is shared as detailed below :

75 per cent to students

20 per cent to guiding teachers

5 per cent to the Head of school

The following productive programmes have been implemented

Manufacture of :

1. Exercise books
2. Writing Chalk
3. Coir door mats
4. Felt type dusters
5. Office file boards
6. File tags
7. Office covers
8. Readymade garments
9. Squash, jam and pickles
10. Teaching aids using paper pulp and plaster of paris
11. Agarbathi
12. Candle
13. Umbrella
14. Ball pen refills

15. Printing job
16. Fibre extraction and Fibre products
17. Palm leaves products
18. Screwpine embroidery
19. Pottery
20. Bamboo Work
21. Grass mats
22. School bags
23. Sealing wax
24. Cloth dyeing and printing
25. Dolls
26. Volley ball net and badminton net
27. Umbrella cloth stitching
28. Plastic sheet products
29. Rubber hawai chappals
30. Washing powder and cleaning powder

During 1988-89 the whole supply of writing chalk, dusters, skipping rope and pin-up-board, worth rupees four lakhs, for the first phase of the implementation of Operation Black-board Scheme was earned out by our pupils under the 'Earn while you Learn' scheme.

Work Experience Seminar, Exhibition and On-the-spot Competition

Every year we are conducting Work Experience Seminars, Exhibitions, and on-the-spot competitions at sub-district, district and State levels. There are 157 sub-districts and 31 Educational Districts in the state. Almost all the lower primary and upper primary schools participate at the sub-district level competitions. In the district level competitions high schools and sub-districts participate. The winners of exhibition and on-the-spot competition participate at the state level competition. Financial assistance is also extended by the Department for conducting competitions at the three levels. There is an approved manual containing the rules and regulations for the proper conduct of the competitions. The winners who are placed in the first three ranks of the state level on-the-spot competition are eligible for cash awards, merit certificates and individual trophies.

Pre-Vocational Courses

On the basis of the recommendations of the State Steering Committee for the curriculum renewal, we have started the preliminary work for the implementation of pre-vocational courses during 1985-86. As an initial step, information was collected from the schools regarding the position of special teachers, availability of equipment and tools and funds under special fee account. The schools have been given the choice to select any three subjects suitable to their locality from among the eleven subjects suggested for introduction during 1986-87. Syllabus

and textbooks were also prepared and got printed

Subjects selected for the year 1986-87

1. Technical drawing
2. Surveying
3. Masonry
4. Food processing and preservation
5. Cooking and catering
6. Cloth dyeing and printing
7. Garment making
8. Electrical wiring
9. Repair and maintenance of domestic appliances (Electrical)
10. Agriculture
11. Composing and proof reading.

Government have accorded sanction for the introduction of 20 new subjects during 1987-88. Syllabus and textbooks were prepared.

A preliminary training was given to 7190 high school assistants for implementing the scheme. Tools, equipment, etc have also been supplied to 600 high schools. An evaluation tool was developed and distributed to the schools. At present, the pre-vocational subject is not included as public examination subject. But internal evaluation is conducted and the proficiency of the pupil is recorded in the SSLC book.

For the improvement of the scheme, more in-depth courses have to be conducted and the machinery for the follow-up action has to be strengthened. We hope that it will be carried out in the coming years.

Madhya Pradesh

MRS. KAMLA JOHRI
PROFESSOR & HEAD
V E. DEPARTMENT
SCERT, M.P.
BHOPAL

Introduction

Work Experience is given due importance in Madhya Pradesh. It has been made an integral part of general education up to class X. Earlier, productive crafts in basic system of education and 'Earn while you Learn' programmes were

implemented with great success in M.P. It directly involved Khadi Gram Udyog Commission in this school programme and made it responsible to supply raw-material and accept the finished goods. In this way the basic problem of procuring raw material and finding market for finished products was solved to a great extent.

With the National Policy on Education, came the new concept of Work Experience. At the primary level, through simple activities pupils learn about cleanliness—personal and environmental, healthy work habits, self help and gradually they are introduced to the world of work. They enjoy undertaking simple handiwork like drawing short, long and straight lines, triangular figures, colouring pictures, distinguishing colours, making small toys of paper, cotton, gatta, etc., collecting pictures, cartoons, tickets and preparing albums or scrap books.

Primary

The main aim at this stage is to arouse curiosity and develop desirable attitude towards work and social values through a selected activity. But due to lack of physical facilities the work is not being done in proper spirit. Most of the primary schools are run in one or two rooms and the working conditions are not very conducive. The other difficulty is of staffing which is not according to the needs of the schools; though single teacher schools have now two teachers. If these teachers are trained in some productive work, they can organise WE activities more efficiently. There is no provision for craft teachers up to middle school.

Upper primary

At the upper primary stage the physical conditions are a bit better and the activities are better organised. Students are expected to share the responsibility in maintaining cleanliness of the schools, and organising various social games and cultural activities. They make dolls and other gift articles, articles for decoration, clay-models, paper and gatta articles and plaster of paris models. The articles made out of wood are also prepared.

High School

At the high school stage, there are craft, art and music teachers and the SUPW is systematically learnt, as there are special crafts rooms also.

Management

District Education Officer looks after the education up to upper primary level and he is responsible for Work Experience also.

Director of Public Instruction controls the high schools and +2 schools. There is no separate wing for SUPW. In the State Institute of Education, there is the department of vocational education, but the sanctioned posts have not been filled as yet.

Response of Students

Response of students to WE programme is not very satisfactory. Attitudinal change is there. But in urban areas they are more interested in artistic activities and reluctant towards chalk making and tat-patti making, whereas in rural areas (since they are well-versed with local occupations) they show interest in new activities only. It all depends on teachers. If they are devoted and have faith in WE programmes there is no problem.

Infrastructure

Institutional infrastructure depends on the resourcefulness of the head of the institution and the teacher-in-charge. How much fund they can manage from the government, from the society and the PTA, because the grants that are regularly given to schools are meagre. Besides, there are problems relating to accommodation, furniture and the material required for WE.

In MP, the curriculum and the Teachers' Guide have been developed in two volumes, one for classes I to V and the other for classes VI to VIII. The curriculum for each class has been dealt with separately and a vivid description, of the activities to be performed have been explained.

Orientation and training programmes are organised sometimes on demand from the teachers and sometimes by the SCERT itself.

Competitions

There are schoolwise competitions related to WE at the school level, school complex level, district and state levels. Prizes and certificates are given to deserving students. Exhibitions are also organised at least once in a year.

Most of the SUPW courses in classes IX and X serve as pre-vocational courses. It is being envisaged that all the vocational courses at +2 level should be supported by pre-vocational courses at high school level.

Evaluation

Since there is no examination of WE, students do not take it seriously. Efforts are being made to convince the Board and other concerned authorities to hold examinations in WE also.

Maharashtra

SHRI V.S. PHARANDE
PROFESSOR & HEAD
SCERT,
MAHARASHTRA, PUNE

Phased Implementation

In the light of NPE 1986 the curriculum of elementary education (from std. I to VIII) is prepared by the SCERT, Pune and it is approved by the Government. The grade/std. wise implementation of the curriculum under NPE in the state has been planned as follows:

<i>Year</i>	<i>Std.</i>
1. 1989-90	I
2. 1990-91	II
3. 1991-92	III & IV
4. 1992-93	V & VI
5. 1993-94	VII, IX & XI
6. 1994-95	VIII, X & XII

The secondary and higher secondary syllabi are yet to be revised. The curriculum in std. I was started in the state from June 1989. The Hand Book for Teachers in the subject of Work Experience of std. I & II is ready in printed form. The Teachers' Handbooks for stds. III & IV are being prepared separately. These two handbooks are now ready as try-out editions. These handbooks are being prepared by the Bureau of Text-book Production and Curriculum Research, Pune-4.

In the revised curriculum nine periods are provided in the school time table of stds. I to V and five periods in stds. VI to VII out of total 45 periods per week.

In the secondary schools Computer Literacy is introduced in the list of optional subjects. It was introduced for std. IX for the first time in 1987-88 and continued for std. X during the year 1989-90.

Teachers and their orientation

As per existing syllabus for secondary level two periods for standard VIII and three periods for Standards IX & X are provided in the school time table out of 45 periods per week. A number of teachers' handbooks were prepared in various subjects of Work Experience of the secondary school level. Ten days' orientation programmes for secondary school teachers teaching Work Experience are

organised every year by the SCERT, Pune. The Secondary School Subject Teachers Association of Work Experience also organises seminars of short duration.

Two all India workshops devoted only to practical work in Work Experience were held at Khiroda with the assistance and guidance by NCERT, New Delhi, 80 teachers participated in these workshops.

University of Pune has included WE as one of the compulsory subjects in the B.Ed. syllabus. Fifty marks are allotted for this subject. A student must secure atleast 40 per cent marks in this subject to pass the B.Ed. examination.

Orissa

DR P.C MOHAPATRA,
PROFESSOR
VOCATIONAL EDUCATION
DIRECTORATE OF T.E. AND S.C.E.R.T
ORISSA, BHUBANESWAR

Educational Scenario

The average rate of literacy in Orissa is 34.23 per cent. Existing number of educational institutions and the number of teachers and enrolment at different levels, are detailed below.

EDUCATION SCENE AT A GLANCE (1988-89)

<i>Type of Institutions</i>	<i>No of Institutions</i>	<i>No of Teachers</i>	<i>Enrolment (in 000)</i>
Primary School	39,293	90,540	35.02
Upper Primary School	9,125	36,948	9.70
Secondary School	4,239	38,365	7.66

Framework of Curriculum

The National Policy on Education recognises Work Experience as an integral part of general education. It comprises activities which are in accord with the interests, abilities and needs of the students. The level of skill and knowledge is to be upgraded with the stages of education. This experience would be helpful on his entry into the workforce. The pre-vocational programmes provided at the lower secondary stage will also facilitate the choice of vocational courses at the

higher secondary stage. 'The National Curriculum for Elementary and Secondary Education - A Framework' prepared by NCERT provides Work Experience as a distinct curricular area at the primary, upper primary and secondary stages of education. A broad indication of allotment in terms of the percentage of total time of that of Work Experience proposed by NCERT is 20 per cent, 12 per cent and 13 per cent respectively in the case of primary, upper primary and secondary stages of education.

Keeping these objectives in view, the distribution of weightage, time and periods allotted at different stages of education to Work Experience in Orissa is detailed below.

DISTRIBUTION OF WEIGHTAGE, TIME ALLOCATION AND PERIODS
FOR WORK EXPERIENCE

<i>Stage</i>	<i>Instructional Weightage</i>	<i>Percentage of time allocation</i>	<i>Periods per week</i>
Primary	100	16	7
Upper Primary	100	10	4
Secondary	100	10	4

The teaching and learning process in Work Experience has three phases:

- i) study of world of work through observation, inquiry and participation.
- ii) use of tools, materials and work practice
- iii) participation in national development programme (through rural reconstruction and upliftment of the poor)

Evaluation

The evaluation of Work Experience is internally conducted and the grade is shown in the performance record. More weightage is given to the evaluation of actual practical work. At the secondary level, the grades are reflected in the mark sheet and in the pass certificate of High School Certificate Examination conducted by B.S.E., Orissa.

Teachers are expected to keep a systematic record of pupils' progress in Work Experience. Apart from teacher's record each student is asked to maintain his own record card. Evaluation is based on the following weightage

- | | |
|-----------------------------------|-------|
| 1. Knowledge and Understanding | — 15% |
| 2. Attitude/Interest/Co-operation | — 15% |
| 3. Process | — 25% |
| 4. Product | — 30% |
| 5. Records | — 15% |

Content of Work Experience

Generally, the content of Work Experience at all the stages comprise two parts - (a) Essential Activities, (b) Elective programme

(a) *Essential Activities* Essential activities are those activities which are necessary for the satisfaction of day-to-day living needs of the children, their families and the community. By and large, these activities can be performed by all the institutions leading to individual improvement, improvement in environment, health, sanitation, productivity, development of hobby and economic status of the community.

(b) *Elective programmes*. Elective programmes are those productive work and services, repeated practice of which would enlarge the scope for exposure to different fields in the world of work and self-employment.

The weightage for these two parts at different stages of education is detailed below

WEIGHTAGES		
Stages	Essential Activities	Elective programme (Productive work practice)
Primary	80%	20%
Middle	50%	50%
Secondary	30%	70%

Activities Undertaken

Primary Stage

Listed below are the activities in which the students at the primary level are taking part under Work Experience

1. Visit to various work situations where people are engaged in local community activities like pottery, carpentry, weaving, tailoring, etc
2. Visit to various service centres of the community—bus stop, post office, railway station, health centres, dairy farm etc
3. Gathering information about functions and services rendered by the functionaries of these centres.
4. Identification of different types of material available in the locality which are used in preparing objects of daily use.
5. Recognising the need for protecting the environment and natural resources—low cost materials used in work situation.
6. Observation of work situations/process
7. Use of tools and materials and work practice—use of simple gardening tools, tools for cleaning, tools for creative activity.
8. Preparation of beautiful and useful objects, self expressional and

creative activities for beautification and decoration of home, and school (paper cuttings, models, preparation of greeting cards, toys, garlands, etc.)

9. Collection of materials from different sources—flowers, papers, used containers, beads, leafs, clay, local forest products and other natural resources).
10. Practice of hygienic principles with regard to body, belongings and work environment.
11. Participation in national and local festivals and school functions.
12. Helping parents and younger at home as also classmates and juniors in school.

Upper Primary Stage

A. Essential Activities Cleanliness drive, beautification and decoration of the school campus, plantation and afforestation in school, home and community land, development of nursery through social forestry project, participation in community service programme, maintaining scrap book-(Stamp collection, seed collection, leaf collection, collection of pictures, dresses of different regions), helping parents, community, classmates and school mates, maintaining diary of noted events of the school.

B. Elective Programme: Maintenance work of home, school premises, care of clothes, preparation of stationary items and materials used in school (chalk, duster), making of toys, puppets and dolls with waste and low cost material, pot-culture, vegetable garden, kitchen garden, plantation and upkeep of school gardens, repairing simple domestic appliances and making of fruit juices, pickles, small savings programme.

Secondary Stage:

A. Essential Activities and Experience : Campus and environment maintenance, community service programme, participation in one of the programmes like scouting, Red Cross, St. John Ambulance service, library service in the school, collecting materials of cultural interest (postage stamp, coins, journals and magazines, newspaper clippings and building up a news-album), knowledge and experience related to journey—train time and bus time tables, buying of tickets, gathering information about facilities during railway journey, knowledge and experience in postal and banking matters and knowledge about police station and fire station.

B. Elective Work Experience: There shall be three streams : (i) Home Science (ii) Crop and Animal Husbandry and (iii) Household care.

Each student chooses any one of these streams. Each stream shall have a core

component which will be compulsory for all students opting for that stream and an optional component. Under the optional component several related but distinct areas of productive work will be available within each stream and each student must choose any one of them.

Stream A-Home Science

Compulsory : Simple food preparation, homekeeping, care of clothings.

Optional: Any one of the following : i) Baby & Child care, (ii) Dress making, (iii) Home & interior decoration, (iv) Nutrition & Patient Care, (v) Knitting & Embroidery, (vi) Advanced cooking & Food Preservation, (vii) Milk and milk products, (viii) Doll making.

Stream-B Crop & Animal Husbandry

Compulsory.

Cultivation of paddy/wheat-field preparation, raising of seedlings-pest control-natural methods of pest control-harvesting

Growing of common vegetables-seasonal cropping pattern

Optional: Any one of the following: (i) Growing fruitbearing trees, (ii) Flower gardening, (iii) Farm Forestry, (iv) Bee keeping, (v) Rearing domestic animals, (vi) Poultry, (vii) Pisciculture, (viii) Mulberry sericulture

Stream-C Household Care

Compulsory: Construction of mudwalls, walls with un-burnt bricks or brick and mortar. Repair of walls, and pucca floor-white washing, basic skills in carpentry, making and repair of doors and windows, painting of doors and windows.

Optional: Any one of the following. (i) Woodcraft and maintenance of household furniture, (ii) Plumbing, (iii) Household electrical wiring, (iv) Repair of household electrical appliances, (v) Bicycle repair, (vi) Repair of motor cycle and scooters, (vii) Dress making, (viii) Repair of electronic goods

ALLOCATION OF TEACHING PERIODS (WORK EXPERIENCE)

<i>Unit/Subject</i>	<i>Class-IX</i>	<i>Class X</i>
Environment and Campus maintenance, and other essential activities	40	20
Essential knowledge & experience (Railway, postal matters etc)	40	20
Work Experience (Compulsory component)	60	—
Work Experience (Optional component)	—	40
Total	140	80

Teachers and Teacher Training

Pre-service:- There are no specialised personnel in schools to teach Work Experience. All teachers are expected to work as teachers of Work Experience. In elementary teachers training programme and secondary teachers training programmes, Work Education (SUPW) is an internally assessed subject

T.T.I. Level. At the T.T.I. level (S.T. School level) 250 marks are earmarked for Work Experience. The course content includes theoretical aspects of Work Experience like aims, objectives, concepts, areas of Work Experience, and practical aspects that deal with working with community. Working with community includes community survey including study of the developmental activities and the plan provisions for the area, managing non-formal education centres and participation in school and community activities

B.Ed. Level: For Bachelor of Education 150 marks are allotted for Socially Useful Productive Work and working with community. These activities are internally graded. A pupil teacher has to take up any one of the following areas: commercial art, type writing, agriculture, production of low cost consumables, tailoring, fruit and vegetable preservation.

Under working with community, a student teacher is expected to prepare the profile of a village, social customs, employment pattern, health survey of 20 students, study of wastage and stagnation in local school, community involvement in school improvement programme, educational development of village, case study of non-formal education, preparation of anecdotal record of five students, participation in tree plantation and social forestry, report about the families and problems of 5 students, report regarding SUPW activities of practice teaching schools.

In-service Training Programme

A. SCERT Level: More than 150 teachers and headmasters of secondary training schools of Orissa had undergone, thirty-five days' training course in the Centre for Cultural Resources and Training, Bahadrapur House, New Delhi, under the Ministry of Culture. They were trained in different areas—songs for children, movement and mime puppetry, pottery, weaving, textile printing, educational games etc. These teachers acted as key resource persons in the programme for mass orientation for school teachers.

P. MOST Programmes: P. MOST programmes are organised by NCERT through SCERT. NCERT in its inservice teacher education package has included Work Experience as a capsule with both theoretical and practical innovations. Under this programme 47,175 primary and upper primary school teachers and 12,609 teachers from secondary school level were exposed to the aims and objectives of Work Experience in the school curriculum and activities.

Future Plans

(1) Recognition of the right to learn is now a major challenge to humanity and Education for all by 2000 AD is a major concern before the people of India. It is envisaged that the students belonging to secondary stage will be associated with Mass Functional Literacy Programme (A.E.) and non-formal education under Work Experience. With proper motivation, training and inputs, they will take up "each one to teach one, if more better" programme.

(2) SCERT vocational wing proposes to conduct intensive training of the sub-inspector of schools of the state on Work Experience during the coming years with necessary assistance from NCERT-both funding and expertise.

These Block Level Education Extension Officers will act as resource persons and catalytic agents for imparting training to the primary school and upper primary school teachers in their centre meeting on Work Experience. Training programme will also be organised for the headmasters of secondary schools on Work Experience in the coming year by the vocational wing of SCERT to expose them to the theoretical as well as practical aspects of this important component of education.

Pondicherry

SIIRI B VENKATARAMANI
PRINCIPAL & STATE APPRENTICESHIP ADVISER
C/O GOVT TECHNICAL HIGHER SECONDARY SCHOOL
PONDICHERRY

Craft Education

In Pondicherry, there are about 344 primary schools, 104 middle schools, 76 high schools and 25 higher secondary schools. The Work Experience programme, otherwise known as Crafts Education is taught in all the middle and high schools, for which one period is allotted per week. The classes are handled by craft teachers, appointed for this purpose. After the implementation of National Policy on Education, action has been taken to review the existing system in the light of the recommendations made in the National Policy on Education.

At present, stress is on teaching a craft in the class room. It may either be a paper-craft or a metal-craft or some other useful craft. It aimed at making the boys acquire certain proficiency or skill in that craft, whereas in the post-Policy context, the stress is more on purposive and meaningful manual work resulting in either goods or services useful to the community. It also aims at developing a desire to do social service. In the light of this emphasis it is proposed to reorganise

the entire curricular structure and also reorient the teachers so as to make them aware of the latest concept of the Work Experience programme to be implemented in the primary, upper primary and secondary stages. Detailed syllabus and mode of implementation are still under preparation. These will be finalized only after detailed study of this subject. Proposals are also under way to re-orient the teachers as per the latest concept of Work Experience so as to make them implement the programme more effectively in the schools.

Constraints

The following are some of the constraints affecting the implementation of the programme:

- 1 Heavy work load
- 2 Lack of accommodation or space
3. Non-availability of funds
- 4 Lack of popular support mainly because of its being a non-examination subject.

Punjab

SHRI MOHAN SINGH WADHWA
SUBJECT MATTER SPECIALIST
OFFICE OF DPI (SCHOOLS),
PUNJAB (CHANDIGARH)

Introduction

The programme of Work Experience was introduced in the state during the year 1964 under the name of Practical Art Education Scheme. The aim was to

- expose the students to manual work and learn dignity of labour
- introduce them to different vocations
- help and guide them to choose vocations according to their aptitude, interest and potentialities

Under this scheme selected students of 6th, 7th and 8th classes are given elementary training in carpentry, metal fitting and electronics respectively. The services of teachers already working with the department were utilised. These teachers were given training in PTTI Institute Mahalpur specially set up for this

purpose. Until 1972-73 this programme was introduced as an extra curricular activity but in 1973-74 it was made an examination subject in 181 schools.

The programme was further expanded with some modifications in 250 more schools at secondary stage and 100 schools at middle stage till 1983-84 under the name of vocationalization of education scheme. Trades relating to various fields were introduced and 16 per cent time was allotted in school time table. Like other subjects it was evaluated by Punjab School Education Board. Necessary infrastructural facilities like trained qualified teachers, workshop attendant, workshop sheds, tools and equipment, textbooks, instructional material and provision for raw material were provided in each selected school. A vocational cell headed by a Deputy Director assisted by Assistant Director, 4 subject specialists and other supporting staff was set up to implement the programme effectively. In order to supervise and coordinate the work a post of District Coordinator was also provided at district level.

With the introduction of SUPW programme from the year 1985-86, Socially Useful Productive Work (SUPW) was introduced as a compulsory subject from 1st to 10th classes with a built-in system of internal evaluation as per national pattern. Varieties of subjects/activities/practices/services have been identified keeping in view their local relevance and usefulness. The emphasis is on practical work so that there is not only education of 3R's but also 3H's (Head, Heart and Hand). Punjab School Education Board prepared guidelines for these activities. No special teachers are provided for teaching this subject. The services of Work Experience teacher, vocational master, drawing teachers, home science teachers, teachers of agriculture, music, tailoring etc. are utilised. They teach the activity related to their subject specializations, and are being given training every year in ITCs of the state in a phased manner.

Activities

Different activities have been identified for different stages. At primary stage SUPW begins with simple, creative, self-expressional activities performed with locally available material. Systematic use of tools is emphasised at middle stage. Three periods per week are provided in school time table. At secondary stage workshop training, production maintenance and service type activities have been started.

Evaluation

Internal evaluation is continuous and schools are to maintain cumulative record of each student which is open to inspection by the authorities of the Board and of the school concerned. The results of internal assessment are communicated by the school to the Board in terms of grades on a seven point scale which is reflected in certificate awarded to student. Student appearing as a private candidate is not allowed to take SUPW. 3 periods out of 54 in a week are allotted in school time table. It is necessary to pass in SUPW subject.

Facilities

531 schools in which practical art or vocationalization of education scheme was introduced have sufficient grants to run these activities. In other schools the programme is run in cooperation with the community and in collaboration with local set-up of the area.

Pre-vocational Courses

With the introduction of vocationalization of education at +2 level, the Directorate feels the necessity of introducing pre-vocational courses at the secondary stage, especially in schools where vocational courses have been started or proposed. A proposal is being submitted to State Government and is expected that it would be cleared soon as it does not involve any extra burden on state exchequer. It would easily be done by utilising the services of trained Work Experience, vocational, agriculture, home science, tailoring teachers by rationalisation and diversion of funds already sanctioned by the Government under such schemes.

List of SUPW Activities for Middle Classes

- Maintenance of school building
- Simple handicraft
- Scouting and guiding
- Horticulture
- Plants—their cultivation and care
- Wall news-paper
- First aid
- Nursing
- Beautification of schools

List of Work Experience Activities

CLASS-VI

- | <i>Boys</i> | <i>Girls</i> |
|------------------|--|
| i) Carpentry | i) Tailoring including stitching of Garments |
| ii) Masonry work | ii) Leather work without Tanning |

Class-VII

- | | |
|--|------------------------|
| i) Metal fitting | i) Machine knitting |
| ii) Servicing of single cylinder diesel engine | ii) Machine Embroidery |

CLASS-VIII

- | | |
|--|-------------|
| i) House hold wiring and Servicing of simple household electric appliances | As per boys |
| ii) Assembling, tuning and repair of transistor receivers | |

List of SUPW activities introduced in IX & X classes from the academic year 1985-1986.

- Beautification of surrounding
- Horticulture
- Animal husbandry (Poultry, Dairy).
- Plumbing
- Electrical wiring
- Maintenance & repair of electrical gadgets
- Motor-winding
- Transistor/radio/assembling/maintenance & repair
- Television (maintenance & repair)
- Welding (electric & gas)
- Lathe work
- Diesel engine (maintenance & repair)
- Steel furniture
- Scooter/motor cycle (repair & maintenance)
- Repair & maintenance of farm machinery
- Paints & varnishes (preparation)
- Electroplating
- Candle making
- Papier Mache including clay modelling
- Typewriting & Shorthand (Punjabi)
- Typewriting & Shorthand (English)
- Salesmanship
- Book keeping & accountancy
- store keeping
- Weaving technology including niwar making and the things made of plastic cane
- Textile dyeing, bleaching and printing including batik and fibre painting.
- Hosiery technology
- Carpet weaving
- Manufacturing of sports goods (wood)
- Manufacturing of sports goods (leather)
- Knitting & embroidery (hand and machine)
- Garment making (tailoring & dress designing)
- Cooking & food preservation
- Home nursing
- Furniture making (wood)
- Printing/composing and book binding
- Photography
- Commercial art
- Toymaking and doll making

- Making educational aids
- Puppetry
- Mushroom growing
- Denting and painting
- Library science
- Painting
- Mechanical drawing
- Home science
- Music (vocal or instrumental)
- Dancing
- Needle work
- Scouts and girl guiding
- Computerisation

Rajasthan

DR P L VERMA
ASSISTANT DIRECTOR (Ac)
BOARD OF SECONDARY EDUCATION
RAJASTHAN, AJMER

SUPW Programme

The present programme of Socially Useful Productive Work in Rajasthan has emerged out of the experiences in the field of craft education, Work Experience programmes and the programmes of 'Earn while you Learn' in the state. The N.P.E 1986 has also made its impact on the programme in the sense that it has now got pre-vocational element in it.

The salient features of this programme are :

- (1) It is compulsory for all the regular students of classes IX and X to participate in this programme.
- (2) It is built into the system of secondary school curriculum
- (3) Though it is not an examination subject, it is compulsory for students to participate in the S U P.W activities for being eligible to appear at the secondary school examination
- (4) More than 8% of the school time is devoted to S U.P.W. This is in addition to about 120 hours of camp activities. So about 13% of the time is allotted to it.
- (5) The Socially Useful Productive Work activities are conducted both in formal (classroom) situations as well as non-formal (Camp) situations

- (6). The main emphasis of the programme is on participation and performance of students and less on their achievements. As per the participation and performance, the grade is awarded to students.

Activities

There are two dimensions of the subject:-

- | | | |
|-----|-------------------------------|--------------------|
| I. | Classroom learning activities | 4 periods per week |
| II. | Five-day camp | 1 Camp per year |

I. Classroom Learning Activities

These activities have been grouped as under -

- (a) Compulsory activities
- (b) Optional activities

(A) *Group of Compulsory Activities* : Activities have been divided and graded separately for class IX and class X to be covered in 4 periods per week which are to be allotted in regular time-table. These are:

FOR CLASS IX

1. Weight, height and chest measurements, to measure temperature and count pulse rate and locate sight defects. A pupil should prepare health record on these aspects of at least 5 persons.
2. Conservation of fuel or knowledge of measures to save fuel by using appropriate means. Use of any two resources like Gobargas (Biogas), solar cooker, pressure cooker, stove, Magan Chulha, gas-oven—general information, maintenance and simple repairs.
3. Simple repairs and maintenance of any three of the following
Water tap, torch, safety lantern, petromax
4. Learning the use of the following postal services: savings account, recurring deposits, savings certificates, postal order, registered letter, recorded delivery and insured covers, money orders and telegraphic message.
5. Reading and use of rail and bus time-table, maps and charts and telephone directory.

FOR CLASS X

6. Use of electric toaster, setting of fuse, connecting plug wires, fitting an electric bulb, maintenance and simple repairs of heater and table lamp
Reading an electric meter, water-meter and calculating the cost of consumption.

7. Maintenance or general repairs of a moped or a bicycle or a scooter.
8. Learning about the following activities related to banking. saving bank account and current a/c with their operations, knowledge of different kinds of cheques and completing the entries in a cheque, bank draft preparation and its encashment; operational knowledge of lockers.
9. Washing, ironing of clothes, applying starch to clothes, removal of at least four types of stains—that of ink, catechu, oily/greasy matter, tea, tar, colours, spots left by fruits and vegetables.
10. First aid activities-checking bleeding due to accident and on-the-spot first aid; cleaning of wound and bandaging, first aid to semi-unconscious and conscious, first aid for bites by poisonous insects, drowning cases, burn cases, etc Knowledge of the methods of fire extinguishing-specially those caused by household lamps, gas and electric short circuit

(B)*Optional Group of Activities* The activities under this head have been divided into four areas A,B,C, and D Each area has a set of activities and a student is supposed to select at least one set of activity from each of the four areas in class IX and other set of activities from each of these four areas in class X but the same set is not to be repeated by a student in class IX or X Area-wise sets of activities are -

AREA A

1. Preparation of washing soap, shaving soap, detergents (solid and liquid), washing powder for utensils and bathing soap
2. Preparation of face powder, face cream, lip-stick, nail-polish, hair oil and boot polish.
3. Preparation of vaseline and antiseptic cream, ointment, unguent iodine, Amritdhara, balm and tooth powder/paste
- 4.(a) Writing commercial letter, order form, reference letter, complaint letter and circular letter
(b) Proof reading, stencil cutting, carbon copying and duplicating
- 5.(a) Preparing stock register (permanent and temporary items) on the basis of vouchers
(b) Cash book writing-two column and three column cash books on the basis of voucher and receipts.

AREA B

1. Preparation of syrups and tomato sauce, 'achaar and murabba', jam and jelly, etc.
2. (a) Preservation of food stuffs (cereals, fruits, vegetables), dehydration of green vegetables and their preservation, packing
(b) Preparing papad of moong-mogar-gramdal, 'sabudana', potato, rice

and maize.

3. Preparation of any of the five items: biscuits, cake, nan, bun, ice-cream, kulfi and cheese.

AREA C

1. Different types of stitching, mending of clothes, fixing of hooks and buttons, sewing of (a) underwear or 'janghia' (b) trousers (Pyjama) or pelliccoat.
2. (a) Embroidery and fabric painting, dry painting on kerchiefs, dyeing of clothes and their starching.

OR

- (b) Batik painting
 3. (a) Different samples of knitting with knitting needle and crochet.
- OR
- (b) Knitting machine, doing knitting, maintenance of the machine.
 4. (a) Preparation of bags
 - (b) Preparation of any two items with canvas or foam leather-purse, wall piece, simple bag, cycle bag, etc.
 5. Preparing dolls (at least two kinds of dolls) and preparing toys using wool and scraps.

AREA D

1. Preparing decorative materials from wax, plaster of paris, papier-mache, waste material
2. Book-binding and preparation of 'Abari'
3. (a) White-wash and colour-wash of different types in a building or 'Alpna' and 'Rangoli' work
- (b) Polishing and painting of furniture.
- (c) Coating primer and painting on articles made of iron to protect from rusting
4. Any one kind of weaving 'nivar' 'daripatti', 'Aasan'
5. (a) Caning of chairs, or
- (b) Preparation of useful material from bamboo-sticks or reed
6. Wood work . preparation of name plate, ordinary tray, photo-frame and electric lamp-stand.
7. Basic office procedure: maintenance of letters, receipt and despatch register, filing of correspondence papers systematically and methodically, indexing.

Schools are free to develop and suggest any other set of activities helpful in achieving the objectives of Socially Useful Productive Work and Community Services according to their needs and resources. Heads of the institutions should send the proposals to the Board and after getting the approval, they may introduce them in their institutions.

II *Five Days Camp*

The objective of organising a camp is to provide opportunities to children to do work as per the needs and capacities and to develop in them the desired values. Students live and work together in the camp and as such they will develop not only emotional integration, communal harmony and a spirit of doing work with mutual co-operation but also the values of co-operation, tolerance, self-reliance etc. It is compulsory for all Secondary/Higher Secondary Schools to organise 5 days camp every year for the students of both the classes IX & X.

AREA 1 COMMUNITY SERVICES

- (a) to work for social and national awareness at the local level such as knowledge about vaccines, spreading literacy, small savings, health hazards, environment and pollution, cooperative programmes, enrolment drive etc. (through talks, posters, exhibition of placards, music, etc.)
- (b) to grow plants and protect them;
- (c) development work—repairing roads, preparing link roads, digging manure pits, etc.
- (d) spraying phenyl and kerosene over the pits containing dirty water near wells, cleaning of public places
- (e) cooking and serving food, arranging light and water
- (f) cleaning and decorating camp area

AREA 2 SURVEY AND COLLECTION WORK

- (a). Surveys and their reporting—social, economic, handicrafts, home industries, local agricultural products, various vocations, folk tales, folk songs, idioms, folklores, illiteracy, educational wastage, vaccinated children, game wise players, educated girls, unemployed persons, etc.
- (b) Collection and reporting (leaves, insects, roots, stones, feathers, nests, birds etc.)
- (c) Environmental studies (physical, geographical, natural, historical and related to pollution, etc.)

AREA 3 NATIONAL AND EMOTIONAL INTEGRATION PROJECT WORK

The objective of this area is to develop the feeling of National & emotional integration amongst students. There can be two ways of organising activities to achieve this objective.

(a) *Activities Related to the Life History of Great Men*

Students should be divided into groups in the camp and each group may be given the name of a greatman.

2. Arranging talks on the life and characters of the great men
3. Collecting important quotations, thoughts, etc of great men
4. Writing scripts on their lives, depicting exemplary episodes through drawings and paintings and collecting their photos, etc
5. Dramatising episodes from their lives

(b) Activities related to culture and heritage of different states.

1. Students are divided into groups in the camp—the groups may be given the names of different states
2. Geographical study of the related states—preparing maps and describing them
3. Preparing scripts about historical, religious, industrial and political features of the related states
4. Presenting the cultural aspects—dresses, dramas, music, paintings, dance through music, tableaux, folk songs, plays and photographs, etc

AREA 4 CULTURAL & RECREATIONAL ACTIVITIES

1. Cultural programmes/dance, group songs, one-act play, monoacting, solo-acting, puppet show etc
2. Literary programmes-poetry recitation, debates, problem solving, short story, sayings, anecdotes etc
3. Camp fire-dialogues, folk songs, folk-bhajans, folk dances etc
4. Physical feats and interesting games

In the above area the theme of the programme should be based on national awareness and social reforms.

Evaluation

1. Weightage to classroom activities and five-day camp activities shall be 50 marks each, per session. Out of the 50 marks allotted for classroom activities, 10 marks should be set aside for compulsory group activity and 10 marks each for the four areas of optional group activities.
2. A regular student is permitted to appear at Secondary School Examination only after he has completed the prescribed activities of SUPW and CS. Heads of institutions certify that they have completed the prescribed curriculum in this compulsory subject

It should be kept in view that :

1. In the Attendance Shortage Form sent by the Board to be filled in by the head of the institution, he certifies that the students have completed the prescribed activities and have attended all the activities of the camp
2. It is compulsory for every regular student to attend the camp prescribed

under the subject of SUPW. Head of the institution cannot exempt any student. In case for certain unforeseen reasons (sickness, etc.), a student fails to attend a camp, the head of the institution forwards the case to the Board along with his factual comments. Final decision in such cases is taken by the Chairman of the Board. However, the result of such student permitted to take the examination is declared only after he has attended both the five-day camps, and certificate of the head of institution to this effect is forwarded to the Board

Training of Teachers

Since every teacher is an SUPW teacher, there is stress on the training of teachers. The following training programmes are organised by the Board

1. At district level - Heads of institutions and teachers are trained by the authority of the D.E.O.
2. The Board organises special 21 camps for craft teachers in Socially Useful Productive Work at the state level.
3. State level resource persons are trained by the Board.

Inspection and Incentives

- (1) In addition to the regular inspections conducted by the district authorities, the Board gets the Socially Useful Productive Work Programme of the schools inspected by a panel of inspectors appointed for this purpose.
- (2) There is a scheme of incentive for schools giving best performance in the field. There are district level as well as state level competitions. The best schools selected by the District Education Officers are again inspected by a teacher appointed by the Board. In this way best school at the State level is awarded a prize of Rs 5000/-, the second one gets an award of Rs 3000/-. Likewise one school for every block of 40 schools is also identified and awarded

Learning-Teaching Materials

The Board has published a Handbook for teachers giving in detail the process of the programme, the details of roles and responsibilities and the process of evaluation. The Board has also published a book for students which describes each activity in detail. This is a sort of self-learning material.

Fees

The amount of Rs 20 is charged from each student as fee for Socially Useful Productive Work. The amount so collected is utilised in organisation of activities.

Tamil Nadu

F. SRI RAMA CHANDRAN
DEPUTY DIRECTOR OF SCHOOL EDUCATION
COLLEGE ROAD, MADRAS
(TAMIL NADU)

Introduction

The very concept of Work Experience has been given different nomenclatures at different times and different places such as Socially Useful Productive Work, Arts and Craft Education, etc. In Tamilnadu it is "Life Oriented Education and Art Education" at present.

Tamil Nadu is a State in which the concept of Work Experience was familiar in school education even during the fifties and sixties of this century, though not having the same nomenclatures. As already mentioned children were involved in this aspect in the form of Craft education such as wood-work, weaving, gardening, sewing, etc.

PECR Programme

The UNICEF Assisted Project "Primary Education Curriculum Renewal" was implemented in Tamilnadu from 1976 to 1987-88. This project was implemented in 130 primary schools, in 13 ranges selected from 13 districts of Tamilnadu. All these schools practised Work Experience in the form of "Socially Useful Productive Work". Children were given ample scope to work with their hands in the Project.

Chief Ministers' Scheme of Life Oriented Education

From the year 1984-85 another scheme viz. The "Chief Ministers' Scheme of Life Oriented Education" (LOE) has been introduced in the elementary, middle and high schools in Tamilnadu. This is almost a voluntary programme offered by many institutions in the state.

This scheme envisages vocationalization of school education at all stages and minimising the gap between school education and real life situation. The scheme also aims at providing ample opportunities to students at all levels of school education to gain work experience through practical training for development of skills and to appreciate the dignity of labour.

As regard the high/higher secondary schools in Tamilnadu, the scheme is being implemented on an experimental basis in 670 schools which volunteered to do so. About 1.11 lakh students are covered under this scheme. In most of these

schools, to begin with, students from 8th standard onwards were involved in this scheme. The scheme was implemented with the community support, involving the use of non-governmental funds available with the school authorities and with the help of local expertise available.

Some of the salient features of the scheme are as follows:

- Wide variety and variability of the courses offered under the scheme
- Courses designed, developed and implemented by the expertise available both in and outside the school
- Utilization of the services or the expertise of the full time existing teachers in the schools
- Utilization of the expertise of the local or village artisans, craftsmen and skilled workers, etc.
- Availability of 2200 full time teachers and 1250 part time teachers to handle Life Oriented Education classes in the schools. (The part-time teachers are paid a consolidated remuneration of Rs. 230/- p m).

A Centre for Life Oriented Education has been started at Gaidhigram Rural Institute, Anna District for preparing the curriculum, courses and syllabi and for monitoring the scheme. A recurring grant of Rs 1,00,000/- (One lakh) was sanctioned for the purpose. The Centre started functioning from September, 1985. It functioned up to 31st March, 1989 and thereafter it ceased to function

NPE and LOE Curriculum

In accordance with the National Policy on Education, 1986, the curriculum for all the classes in school education has been revised as per the guidance from the report of Dr Malcom Adhi Seshiah Committee appointed for the purpose. The Committee spared no efforts to bring in the component of Work Education in the school curriculum. This Committee also preferred to use the terminology of 'Life Oriented Education and Art Education' following the pattern suggested in NPE. It is noteworthy to mention that there is a clearly defined syllabus for LOE, for all the classes. It is provided in Volume V of Dr. Malcom's Report.

Time Allocation

The following is the time allocated for Work Experience in the schools of Tamilnadu.

Standards I to V	5 periods per week
Standards VI to VIII	4 periods per week
Standards IX and X	4 periods per week.

Instructional Materials

Instructional materials are available in the form of teachers hand-book and students activity books for implementing Life Oriented Education in schools for standards I-V and teachers hand-book alone for the higher standards. These books

have been prepared by experts for the purpose.

Teachers for the Scheme

As it is envisaged in the NPE 1986 Work Experience is not to be handled by separate teachers appointed for the purpose. All the teachers in the schools are expected to handle LOE classes. However, those teachers who were working in the schools and those who were already appointed, as it has been mentioned earlier, are allowed to continue and hence permitted to handle LOE in schools. These teachers include, craft teachers, art teachers, sewing mistress, etc.

Teachers' Training

The programme on mass orientation for teachers in NPE 1986 includes a module on Work Experience. Under this programme about 36,600 teachers are covered every year. The training includes demonstration classes also along with the theory. Besides PMOST, some inservice training programmes in Work Experience are also organised by NCERT and SCERT from time to time.

Educational Evaluation

The Life Oriented Education & Art Education or the Work Experience Programme, has not been included for purposes of any external examination and assessment. However, the programme is evaluated through internal assessment in the schools at the school level.

Uttar Pradesh

SHRI UN MISHRA
DEPUTY DIRECTOR (SANSKRIT)
DIRECTORATE OF EDUCATION
UTTAR PRADESH

Introduction

The programme of Work Experience was introduced in some of the schools immediately after the recommendations of the Education Commission (1964-66), but it gathered momentum only when the 10+2+3 system was adopted and the introduction of SUPW was accepted as a necessary component of 10 year school programme so as to provide children with opportunities of participating in social and economic activities inside and outside the classroom, thereby enabling them

to understand the scientific principles and processes involved in different types of production work. Still the programme was not so popular as it became after the National Policy on Education (1986) was laid down and the concept of SUPW was reiterated and renamed as Work Experience and the mass orientation programme was launched. Surely it has assumed massive proportion by now and is widely accepted as an essential component at all stages of education by teachers, guardians and administrators and is viewed as a purposive and meaningful activity fully enjoyed by students, junior as well as senior classes, in the schools

Implementation Mechanism

- (1) Participation in Work Experience (internal and external), games, scouting/guiding, red cross and cultural activities have been made almost compulsory for all the students and six periods per week are allotted for them in the time table, out of which two periods are allocated for Work Experience.
- (2) House system has been introduced in schools whereby all the students of a school are divided into 5-6 houses. The division of students is made in such a way that the students of each class may be represented in different houses. A monitor is selected for each section of a class for each house. There is a House Captain and a Vice House Captain. Captains are to ensure that all the students of the House participate in different Work Experience activities, games and other extracurricular activities. The Captains are selected from among those students who have special aptitude and interest in specific activities and also possess the quality of leadership.
- (3). The activities under Work Experience are planned keeping in view the local needs based on survey and the infrastructure available in the school.
- (4) All the teachers of the school are supposed to participate in different programmes. The activities are allotted by the Principal in consultation with the concerned teachers keeping in view their specific talents and interests. House masters are also appointed to be incharge of the various activities in a House.
- (5) What time of the school hours should be allotted for Work Experience and extracurricular activities is decided by the Principal and the teachers depending upon the facilities available in the school and the size of the school. In some of the schools the period immediately after the morning prayer is found to be more suitable, while the period immediately after the mid day break is found more suitable in some other schools. A special time-table has to be prepared for this period and it is to be rotated after each week or month so that each student should get an opportunity to participate in each type of activity organised for practice. The students of class X and XII are to devote

their time for self study or to play supervisory roles during the period as desired by the class teacher.

- (6) The following records are maintained for evaluative purposes:
- (a) House Cumulative Register
 - (b) Class Cumulative Record Register
 - (c) Activity Attendance Register
 - (d) Mark Sheet

The house cumulative register is maintained by the House master in which the monthly marks/annual marks are recorded for each student. The class cumulative record is maintained by class teacher and also the attendance register is maintained so as to ensure students' participation. Student's performance and his rate of learning is continuously evaluated. Every student is evaluated out of 10 marks every month from July to February i.e. for 8 months. The distribution of marks is as given below

(1) Practice Work -	1 mark for attendance	
	1 mark for motivation for work	4
	1 mark for discipline	
	1 mark for participation	
	2 marks for excellence	
(2) Product:-	2 marks for originality	6
	2 marks for devoted labour	10

20 marks are allotted for competitions at school level, school complex level, district level and the regional level: five marks for each level. The records are properly maintained and shown to the parents at the end of each month. It is to be noted that the marks obtained in Work Experience are not added to the scholastic achievement of the student and do not count for his promotion to the next class.

(7) Committees have been set up to coordinate and direct the activities at the block level, city level, and district levels. The district level committee known as Janpad Vidyarthi Vikas Samiti is the apex body looking after the interest of the secondary school students for properly running the pre-vocational, vocational and student service programmes. Parent teacher associations of the schools are also found very keen to make Work Experience programme in schools a success by helping in terms of money, infrastructure facilities and the services of resource personnel.

Types of Activities Offered in Schools

Apart from the essential activities of social service, the following elective programmes have become popular in the state

- | | |
|--|-------------------------------------|
| 1. Spinning and weaving | 16. Book-binding |
| 2. Tailoring | 17. Dyeing |
| 3. Cane and bamboo work | 18. Fish rearing |
| 4. Watch assembly and repair | 19. Bee-keeping |
| 5. Electric wiring | 20. Poultry keeping |
| 6. Fibre glass work | 21. Raising vegetables |
| 7. Textile printing | 22. Silk worm rearing |
| 8. Rexine Work | 23. Vegetative propagation |
| 9. Fruit preservation | 24. Nursery |
| 10. Hosiery | 25. Chalk and candle making. |
| 11. Photography | 26. Baking and confectionery |
| 12. Electronics-radio & trans-
ister, assembly/repair | 27. Screen printing |
| 13. Woodwork | 28. Mat and carpet making |
| 14. Leatherwork. | 29. Doll and Toy making. |
| 15. Metal work | 30. Agarbattu and essence
making |

Teachers involved in Work Experience

All teachers participate in Work Experience and extra-curricular activities organised in the school. This has been laid down as a policy and it depends upon the Principal/Headmaster of the school to stick to this policy and utilise the services of the teachers to the best possible level. All teachers are however not equally competent and also do not take active interest.

Students Response: Students are found fully interested in Work Experience activities and some of them take it up as a career in their life. It is hoped that the programme will become more and more popular as the facilities for vocational courses at +2 stage improve.

Institutional Infrastructure

The Government of Uttar Pradesh issued grants of Rs 10,000/- to 200 Intermediate Colleges in 1988-89 to buy equipment in 3-4 types of the following trade activities:

<i>Sl No</i>	<i>Trades/Activities</i>	<i>Grants</i>
1.	Spinning-weaving	Rs. 2,500/-
2.	Cane and bamboo work	Rs. 2,500/-
3	Watch assembly and repair	Rs 2,500/-
4	Electric wiring etc	Rs 2,500/-
5	Fibre glass	Rs 2,500/-
6	Tailoring	Rs. 2,500/-
7	Rexine work	Rs 2,500/-
8.	Textile printing	Rs 2,500/-
9	Fruit preservation	Rs 5,000/-
10	Hosiery	Rs 5,000/-

11.	Photography	Rs 5,000/-
12	Electronics	Rs. 5,000/-

These colleges, well known as 'Sandarbha Kendra' (Resource Centres) have not only made infrastructure facilities available through the grants received from the Government but also started more Work Experience activities with the help of parent teacher association and donations from generous people of the society. The other schools/colleges have also made infrastructure facilities available to their students.

Curriculum and Instructional Materials

Curricula in most of the activities mentioned earlier have been developed by the Board of High School and Intermediate examination, U P and by the SCERT for the middle school level. Instructional material have been developed by Peoples College, Haldwani.

Orientation and Training of Teacher

10-day orientation courses for teachers were organised in different activities in the following professional institutions of the state

1. Peoples College, Haldwani, Nainital: It is a pioneer institution running various courses for adults/teachers to offer them skill in various types of work of industrial nature. More than 3000 teachers have so far been trained by this college.
2. Basic Training College, Varanasi offered training to 400 teachers in areas related to agriculture.
3. Constructive Training College, Lucknow—offered training to 400 teachers in areas such as book binding, stationary work, wood work, spinning-weaving etc.
4. College of Home Science, Allahabad—offered training to teachers in Fruit Preservation, dyeing, tailoring etc.
5. Literacy House, Lucknow—offered training to 400 teachers in screen printing.

The teachers who were sent for training in the above institutions were mostly those selected from the central schools known as Resource Centres of school complexes of the state. Their services were utilised for training the teachers of the member schools during the mass orientation programmes. By and large more than 20,000 teachers of 6000 secondary schools have been oriented to different Work Experience activities and thus there are more than 3 teachers in each secondary school who have received training in W.E. At least one teacher from each of the 15,000 junior high schools has also been oriented to one or more W.E. activities. Similar is the case with the primary school teachers.

Problems

Some of the major problems are

1. Too much work-load on the teachers because of which there is reluctance on their part to devote enough time for the work
2. Non-availability of enough rooms for practical work
3. Non-availability of funds for buying the raw material needed, particularly the articles which are costly, such as photographic materials
4. Difficulty in selling the goods/prepared materials

However, the programme is gaining popularity with time and we hope to make it achieve the objectives laid down in the National Policy on Education

West Bengal

PROF P K DAS,
DIRECTOR,
S C E R T
WEST BENGAL

Background

The state education policy advocates a scientific and life-oriented educational system, underscoring the dignity of normal labour for bringing about socio-educational changes. Education related to culture, customs and needs of the society is recognised as the most important tool to develop human potentials, remove existing disparity in the social structure and raise the level of consciousness of the people awaiting a better social system and standard of living. The basic tenets of this policy is particularly applicable to the primary and the secondary stages. To make education life-oriented we need associate education with work which takes into account the needs and available resources.

In the above context SUPW or Work Education or Work Experience, as some prefer to name it, has found a place in the education system. It is not only the concept of Work Experience but the perception in terms of knowledge, skill, attitude and application which has been the main concern. A systematic and calculated approach has been adopted for inducting the concept of Work Experience with all its manifestations from primary to higher secondary stage. There has been a concerted effort in this direction by different agencies supervising education. The primary (I-V) is directly looked after by the State Government while the secondary (VI-X) and the higher secondary stages are the responsibilities of two statutory bodies i.e. West Bengal Board of Secondary Education and West Bengal Council

of Higher Secondary Education respectively. In West Bengal there is a parallel system of Madrasah Education. All these function within the general framework of state education policy.

Primary Education

Curriculum: Primary curriculum closely follows national curricular framework with major deviations that only mother-tongue is recognised as the medium of instruction at this stage and policy of 'No Detention' is followed. Basing on the West Bengal Primary Education Act, 1973, amended from time to time the Primary Syllabus Committee (1979) came out with a detailed curriculum and syllabi, elaborately spelling out the operational aspects in order to realise the objectives. From the first stage (Class I) importance was given to creative and productive work on a footing equal to customary subject areas like language, arithmetics, environmental studies, social studies and physical education & sports. The detailed report of the Syllabus Committee contained guidelines for teachers teaching or rather creating awareness about creative and productive works as there were no textbooks prescribed for the purpose. The need for guidebooks for all areas of study was underlined. The SCERT has recently developed these basing on the outcome of the UNICEF-assisted PECR Project. The guide books for classes I and II are to be distributed to all primary schools of the state free of cost from the next academic session beginning May, 1990. The guide book related to creative and productive work for all classes (I to V) are prepared in a manner so that teacher may use these for specific activities following easy-to-comprehend illustrations and proceed further beyond, going by the suggestions.

Training: The programme of mass orientation of teachers (PMOST) at the primary stage has covered more than 50 per cent teachers in the first phase. Unfortunately the orientation in respect of creative and productive work was virtually ignored either for wrong perception or due to the mistake of the implementing authorities. Now the SCERT being given authority in designing instructional materials and planning to meet academic demands in true spirit of the primary curriculum, amends would be made in the next phase.

Evaluation: Because of the policy of 'No detention' followed in the primary stage, the evaluation system of creative and productive potential of the students is in a flux as the complementary concepts of continuous evaluation and remedial teaching have not gone deep into the heart of the teachers. During the PMOST Programme teachers were acquainted with the curriculum, syllabi, etc. These ideas had positive effect on them.

Secondary Education

Policy: Recommendations of the Mudaliar Commission (1952-53) and Kothari Commission (1964-66) with emphasis on 'vocational efficiency' by the former

and 'Work Experience' by the latter, did not escape the notice of W B B S E. In between were the recommendations of a separate state level education commission which facilitated inclusion of 'craft' in the secondary curriculum as an important core subject. Recommendations of the Kothari Commission further strengthened and extended the concept to "Socially Useful and Productive Craft and Trade" when new school curriculum and detailed syllabi were introduced in 1974. Work Education was introduced as one of the compulsory subjects

The Board visualises Work Education with the following aims:

- (1) To instil the dignity of productive labour into the pupil with a view to changing his attitude towards productive labour, and towards working people who produce and nourish society
- (2) To teach him how to plan a work
- (3) To discover the aptitude of the pupil for certain type of work, if any, and foster his ability
- (4) To develop dexterity
- (5). Last, but not the least, to integrate work with education i.e. to correlate the knowledge acquired with the work to be performed

Considering many constraints, particularly those related to infrastructure and resource, the Work Experience idea as conceived by the Kothari Commission could not be fully assimilated in the curriculum and syllabi. A strategy was therefore adopted to overcome the hurdles. Work Education for the upper primary stage (VI-VIII) was intended to expose the students with their maturity and ability to socially meaningful activities aiming primarily to acquaint the pupil with the world of work in his environment. Understanding of productive process in general was the main concern and not actual production of socially useful materials

Areas of Activities: About 17 'environmental activities' were suggested. These are: agricultural farming; animal husbandry; transport system; rice mill, bee-keeping; and poultry keeping, manufacture of plastic goods; small industrial units; confectionaries; fruit preservation; ceramics; mat making; village smithy and carpentry shops; printing press; paint manufacture; paper mills, and electrical goods manufacture. Simple activities were suggested based on the understanding of environmental activities as an outlet for the creative energy of the adolescents of age group 11+ to 15+. These were: Spinning; paper-cutting; card-board work; clay modelling or working with plasticine materials; chalk making; candle making; incense stick making; puppetry; preparation of articles of children's drama, gardening; needle work; cane and bamboo work; work on farms; and book binding.

For the secondary stage, the emphasis was obviously on production of socially useful materials bringing learning closer to work; earlier background knowledge and understanding being concretised. Here we observe a pattern of gradual change made through experience. The first batch of students who appeared at the 'Madhyamik Pariksha' at the end of class X in 1976 following the introduction of new secondary syllabus with Work Education as one of the compulsory subjects,

offered as many as 123 projects related to Work Education. The number gradually decreased in the following years, and from 1980 onwards Board prescribed 47 projects - a school being required to offer at least two projects. For practical reasons from 1984 the field has been limited to only 11 project areas. These are soap, phenyl and ink making, household wiring and electrical gadget, repairing or the assembling and repairing of transistor (or radio); cultivation of cereals (rice and wheat); cultivation of jute; growing of vegetables and flowers; growing of annual and bi-annual garden plants; elementary spinning and weaving; designing, dyeing and weaving; tailoring and needle work; wood work; and clay modelling.

A school may introduce one project or more than one, but not exceeding three in classes IX & X.

Under additional subject (one full paper of 100 marks) the following eight vocational subjects (corresponding to prevocational course) are offered

Sewing and needle craft; elements of agriculture and horticulture, pisciculture; animal husbandry including poultry farming, short-hand and type writing; elements of general engineering; wood-work and workshop technology, and building materials and construction

Needless to mention, the study of one of these courses demands better knowledge and skill than required for pursuing the study of the compulsory subject.

Weightage: Work Education constitutes the better part of a full paper of 100 marks with physical education, social science and school performance as the other components in the curricula for VI to X. The weightage is 50 per cent. Considering the fact that total marks for all the subjects in class VI is 700 and for the rest of the classes 900, the importance of Work Education in the lowest level is apparent, emphasising the continuity of this stage of education with the primary stage where creative and productive activities dominate teaching-learning process, in modern terminology activity-based methodology with universal application.

Evaluation: Work Education has been in-built in the curricula of all stages of secondary education. 50 marks for Work Education in the paper are evaluated at the public examination by an external examiner. For the work book to be maintained as per specification of the Board, marks allotted are 10 whereas for practical work done in the presence of the external examiner, another 20 marks are allotted, viva-voce accounts for the balance 20 marks which in turn relates to work-book, attainment, product and practical work. This is a recent modification of the earlier system of evaluation basing on the materials submitted - often fruits of other's labour or merchandise procured from 'bazaars'. There was a cryptic saying that for Work Education one should go to hawker's dens rather than to schools. The earlier stigma still persists as there are many who have reservations about assessment not being sufficiently objective.

Training: During the PMOSF Programme at the secondary stage training was provided to each and every teacher belonging to middle and secondary schools.

in all subject areas including Work Education. A teacher's manual entitled *Sikshan Sahayika* has been brought out for ready use of teachers to keep them aware about concept, methodology and planning related to teaching.

Evaluation Emphasised. The Board has adopted a group system for declaring a candidate appearing at 'Madhyamik Pariksha' 'passed'. While a student may qualify by securing 20 marks in a subject or paper of 100 marks, he/she has to obtain 34 per cent in the group. There are four groups: language (300 marks), Mathematics and Science (300 marks), History-Geography (200 marks) and Work Education-Physical Education - Social Science - School Performance combined (100 marks). The importance of Work Education is apparent at least in comparison with the other three groups

Concluding Remarks

Work Education or Work Experience is something we cannot underestimate. The concept is as old as primitive age, and civilisation progressed with socially useful productive work. It is the inner urge for work and restlessness for creative work which have made what mankind is today. Human progress being a dynamic process, our dependence on creativity and productivity will remain ever demanding. In the context of narrower domain that is school education we have no choice but to lean heavily toward a system which recognises work experience as a purpose for education. The prevailing defects and ills are creation of ours and we can remove them if we are honest.

Navodaya Vidyalayas

DR. M. P. CHHAYA
EDU. CONSULTANT
NAVODAYA VIDYALAYA SAMITI
NEW DELHI

Introduction

Over the past fifty years, and especially in the last twenty years or so, there has been an increasing appreciation of the need to include work as a vital component of education at all stages of school education. This has its roots in the perception about work education as a powerful means of restoring respect and dignity to all types of manual work, removing distinctions between manual workers and white collar workers, promoting self-reliance in meeting one's daily needs and those of the society, increasing productivity through the development of proper

work skills and values, and accelerating the process of economic development in the country through community service and social work by school students

More specifically, Work Experience provides the basis for building up proper attitudes towards work, developing favourable work values and habits, imparting necessary knowledge related to work, and developing appropriate work skills which can help the children to become productive and self-reliant in meeting their day-to-day needs and those of their families and communities. Work Experience can further enable the children to discover their real interests and aptitudes which would be helpful to them in selecting suitable courses of study and occupations later on. Since work occupies a prominent position in the life and well-being of an individual and country, Work Experience occupies a place of pride in the Navodaya Vidyalaya Curriculum.

Work Experience has been assigned a very important place in the NPE because of its potential for fostering multi-dimensional but harmonious development of the child's personality on the one hand and for bringing about a total revolution in his outlook towards manual work at the other. A new type of work ethics comprising love for manual work, regard for manual workers, development and appreciation of self reliance in day-to-day life, creative endeavour, increased productivity, excellence in performance and personal social qualities required for smooth and efficient working is sought to be developed through Work Experience. Because of these, Work Experience has been made an integral part of curriculum at all stages of school education and accordingly, it is a part of the 'Core' or 'Essential' Curriculum in the school.

Concept of Work Experience

Work Experience comprises work consisting of service, production and community development activities in various areas of human need such as health and hygiene, food, clothing, shelter, recreation and social service in accordance with mental and manual abilities of the children at various stages of education and the availability of local resources. The Committee visualised intensive participation in production and service-oriented projects for the middle and lower secondary stages alongwith an 'Earn-while-you-Learn' dimension for needy students on an optional basis. It assigned equal importance to community work/social service for creating social awareness and concern for the welfare/development of the local community or society at a large.

The first essential attribute of Work Experience is, therefore, its manual character which means that the children are to work with their hands and thereby develop a sense of dignity of labour and stamina for hard work. Manual work should also be purposive or educative in that it should help develop knowledge, understanding, attitudes, personal-social qualities and skills related to the world of work. Further, Work Experience should be meaningful i.e. it should help in the satisfaction of children's basic life needs such as food, clothing, shelter, health, hygiene and recreation through production of goods or rendering of services. Social

or community service for the welfare/development of the community or society at large should also form an essential component of Work Experience.

Special Significance of Work Experience for Navodaya Vidyalayas

Provision of quality education to children who would otherwise remain deprived of it due to socio-economic limitations was the main consideration for establishing Navodaya Vidyalayas. The Navodaya Vidyalayas are intended to foster multi-dimensional, but balanced growth of students. Their main focus is to be on developing among school students a good physique, the right set of values including dignity of labour and national integration, self-learning competencies, creativity and excellence. Navodaya Vidyalayas have been conceived of as pace-setting institutions in several ways some of which are strict adherence to the three-language formula, quality instruction in all school subjects, a rich programme of physical education and co-curricular activities and a purposive and meaningful programme of Work Experience which is to help develop the much desired Gandhian spirit.

Although the Navodaya Vidyalayas are to provide equal and even better educational facilities than public schools, they are schools with a difference. They are catering to the needs of children from deprived sections in rural areas. Hence they should be careful to provide such education as will not create alienation between the students and their families or communities. Rather, the education given in Navodaya Vidyalayas should be such that it develops among students an essential awareness of the problems and difficulties being faced by their families and communities, their underlying causes and the ways to remove them. It should also imbue them with an ardent desire to improve the lot of their people. The school programme also inculcates the democratic ideals of equality and brotherhood between Navodaya Vidyalaya students and their counterparts in ordinary schools or outside them. All these can be achieved only through an appropriate programme of Work Experience which includes need-based community service programmes and programmes for helping other children in academic and non-academic pursuits. Moreover, through Work Experience, the day-to-day living in the Navodaya Vidyalayas can be permeated with a spirit of self-reliance, mutual helpfulness, corporate living and welfare of all.

Manual work can form a very important part of day-to-day living in the Navodaya Vidyalayas. A students self-management structure with minimum employment of servants and effective supervision by teachers can be created in the Navodaya Vidyalayas which would include a good deal of self-reliant work on the part of students. Self-reliance in cleaning and maintaining the school and hostels, in planning, preparing and serving food, in washing, ironing and repairing clothes, in providing essential services such as cooperative store and bank, post office, railway/roadways booking, and in arranging physical, cultural and recreational activities would go a long way in bringing the Gandhian ideals of manual work, dignity of labour and self-reliance nearer to realization. Last but

not least, Navodaya Vidyalayas require a worthwhile programme of productive work suited to the needs and capacities of children studying in them and the local environment and facilities which can be made available

The programme of productive work is needed to constructively channelise the creative and productive potentialities of adolescent students bubbling with energy and enthusiasm in upper primary classes. Since Navodaya Vidyalayas are generally located in rural areas the students should be provided activities suitable to their local and geographical needs. Being co-educational institutions facilities for work experience should be provided both for boys and girls

Content of Work Experience

The most crucial task for assuring the success of Work Experience programme is to arrive at a carefully selected list of activities which would help in achieving the intended objectives viz development of self-sufficiency among students, inculcation of dignity of labour and worthwhile work habits and qualities, promotion of productive capacities and skills, and development of social concern and responsibility among them. Accordingly, a comprehensive list of Work Experience activities from all the areas of human need as given by Ishwar Bhai Patel Committee viz health and hygiene, food, clothing, shelter, recreation and social service, with a variety of activities suited to the needs of different geographical areas in the country are required. It is also necessary to ensure the suitability of this list for rural and urban areas, girls and boys, tribal and non-tribal populations. Another most important consideration for the selection of a Work Experience activity should be its suitability to the ability level of students and relevance to the needs and problems of students, their school, family and community. Then again, a Work Experience activity should be feasible i.e. it should be capable of being implemented with the available resources in terms of space, equipment and materials, teachers and time. Last but not least, a Work Experience activity must involve manual work and result into the production of goods or services which can be utilised by the school or sold out for money.

Based on the above criteria, comprehensive lists of Essential and Elective Activities have been prepared. The Essential Activities are to be performed by all the students as they are basic to the satisfaction of every-day needs of the students, their families and communities. The nature of essential activities selected is such that they can be performed by all the Navodaya Vidyalayas as they are, or in their particular geographical/cultural contexts which have been indicated separately. They are intended to result into basic attitudinal changes towards work and development of life skills and should by and large lead to the enhancement of nutritional, health, sanitation, productivity and economic status of the community. The programme of Elective Activities includes activities of a wide variety and is aimed at the learning and mastery of skills of productive work which are quite important at this stage. Under this programme, a number of specific activities of gradually increasing difficulty/complexity have been grouped in such a way that

they can be undertaken in the form of a project to be completed over a span of time in one to three years. Such activities/projects are intended to result into intensive skill formation and proficiency in work which should lead to increased productivity and capacity on the part of students to engage in work which would enable them to earn alongside learning. This experience would also be helpful to those pupils who for some reason or the other are unable to continue their studies and have to join the world of work directly or after some occupational training.

The Essential and Elective Activities have been divided into those which are common to all the geographical areas and those which are peculiar to some geographical areas or have a peculiar context.

Allocation of Time

Six periods in a week are allotted to the subject besides out of school time for productive activities. Block periods are arranged for visits to work places, community service programmes and productive work. Navodaya Vidyalayas being residential in character, students render a good deal of personal, social and community service in the areas of health and hygiene, culture and recreation and community work before and after school and on holidays. The weightage of 33 per cent to essential activities and 67 per cent to elective activities have been given in Navodaya Vidyalayas.

Selection of Activities

The Work Experience programme centres around six areas of human needs viz health and hygiene, food, clothing, shelter, recreation and social service. A balanced selection of activities from each of these areas is made by each Navodaya Vidyalaya according to the educational potential of an activity and the space, tools, materials and teachers available for it. The selection is made by a Work Experience Committee consisting of the school Principal, the Work Experience teacher, a few subject teachers, representatives of the local community and experts from different professional/occupational groups and development agencies. It is made for a three-year period so as to ensure continuity and balance in activities for a particular class over the entire upper primary stage. As far as possible, a variety of essential and elective activities are provided so that children can develop self-sufficiency in meeting their daily needs and discover and develop their vocational aptitudes.

As regards essential activities, individual schools select those which have the topmost priority as judged from their needs. There is no limit as to the number of essential activities which can be undertaken by a school. However, they should not exceed time assigned for their teaching, experimentation and some practice during school time since their actual performance will mostly take place outside school hours or on holidays in the hostels or in the neighbourhood community.

In the case of elective activities again, there is no restriction to the number, provided they do not exceed time allotted in the school. Depending upon the number of periods needed for attaining a reasonable level of skill in an activity, one to

three elective activities should usually be possible in a year

The elective activities also include social service projects based on carefully considered needs and pressing problems of the school and the outside community. They are not only identified with the help of the local community, but also carried on with its cooperation. Projects for adult education, for the non-formal/remedial education of poor/weak children, for service of the sick, the old, the handicapped, and for the sanitation and development of the community are taken by Navodaya Vidyalayas.

Scheduling of Activities

Work Experience activities from the three areas of health and hygiene, recreation and social service can be undertaken out of school hours. Productive activities from the other three areas of food, clothing and shelter and some service-type activities related to school are arranged during school hours. As children are staying in Navodaya Vidyalayas all the 24 hours, Work Experience activities are arranged not only during school hours, but also spread over before and after school time and on holidays. Personal hygiene, environmental cleanliness and decoration of the hostel are taken up early in the morning before school. Washing, ironing and repair of clothes take place after school or on holidays. Recreational activities like dance-drama, music, film shows etc. are organized after school hours, while social service projects are scheduled for 2-3 hours. Change of Work Experience activities every term twice or thrice in a year has the distinct advantage of providing variety and interests.

Thus in the termwise distribution of activities, essential activities related to health and hygiene are scheduled every day, while those (essential and elective) related to recreation and social service are scheduled at least twice a week and once in a fortnight, respectively. The remaining three areas of food, clothing and shelter, are scheduled for one term or more in respect of elective activities. The termwise activities, if three elective activities are to be performed in a year, may be similar to the one given below:

Terms	VI			VII			VIII		
	I	II	III	I	II	III	I	II	III
1. Health & Hygiene	✓	✓	✓	✓	✓	✓	✓	✓	✓
2. Food	✓				✓				✓
3. Clothing		✓			✓		✓		
4. Shelter (Handicrafts)			✓	✓				✓	
5. Recreation	✓	✓	✓	✓		✓	✓	✓	✓
6. Social Service	✓	✓	✓	✓		✓	✓	✓	✓

Health and Hygiene - Before and after school

Recreation - After school

Social Service - During holidays

Evaluation of Work Experience

The purpose of evaluation in Work Experience as in any other subject

is to assess the progress that students are making towards the goals set out for the programme and to find out the effectiveness of the methods being used to promote the goals. The content of evaluation in Work Experience are (1) attitudes and qualities for work, (2) work skills, and (3) knowledge and understanding related to work. The techniques and methods of evaluation include observation and anecdotal records for attitudinal and personality development, observation/examination of the actual performance of an activity or its product on the basis of predetermined criteria and oral questioning, and examination of student diaries for ascertaining the acquisition of knowledge and understanding.

Evaluation of Work Experience takes place according to a well-designed scheme of continuous and comprehensive evaluation by the teachers teaching the subject. While informal evaluation of the attitudes, personal-social qualities and knowledge of the world of work should accompany the performance of activities by students, evaluation of the skill competence is made on the basis of the product created by them at the end of an activity. The quality and usefulness of the social service performed is to be assessed both during and after its performance. Skill development is given about 50 per cent weightage, while attitudinal and knowledge development is assigned 20 and 30 per cent weightage. A five point scale with A for outstanding, B for Very Good, C for Good, D for minimum acceptable level of performance and E for poor/unsatisfactory performance may be used.

Teachers keep systematic records of pupils' progress in Work Experience. Pupils also maintain their own record cards/diaries and make entries in them at the beginning and end of an activity which is countersigned by the teacher. Teachers record assessment of an activity at the end of each operational stage of the activity or its final completion. A cumulative record card is prepared by taking all assessments into consideration. The cumulative record gives at a glance complete picture of the attainments of a pupil on Work Experience all through the year.

PART . III

**Theme Papers and Reports of Innovative
Experimentations**

The programme of Work Experience (WE) as recommended at the national level is neither prescriptive nor rigid. Further, it, being a non-examination subject, has lot of scope for flexibility and innovative experimentations by the state, school or even individual teachers. Following are some such papers which in addition to throwing light on the theme of WE, present reports of some innovations which provide lessons for others to emulate.

Innovative Practices in Work Education and Work Education in Teacher Education Programme

DR N P BANERJEE
PROFESSOR OF EDUCATION
DEPTT OF EDUCATION, VISVA BHARATI,
VINAYA BHAVAN SANTINIKETAN,

The relation between work and education is very old. The *Karma Sanskar* or the value of work in the value system has seen many reversals in the history of Indian culture. The last had been during the nineteenth century particularly as a result of the introduction of a system of literary education with the sole purpose of supporting the colonial domination.

Although the education surveys, despatches, and committee reports carry recommendations for the introduction of work education in the form of some training for vocations, no serious attempt is made to change the people's attitude towards work, to give work equal value in life with intellectual or spiritual pursuits, to revitalise the *Karma Sanskar* of the Indian Culture. Persons like Tagore and Vivekananda realised the humane value of the workers and the value of work. They provided a fresh urge to revitalize the *Karma Sanskar*. The strongest wave flooded parts of the country during the first decade of the twentieth century during the 'Hindu Mela' days.

Tagore introduced work in general education in his 'Brahmacharya Vidyalay' and tried to impart to work, particularly creative, recreative and preparatory work, a culture value.

A wider attempt to revitalize work culture was in reality initiated by Mahatma Gandhi. He introduced productive work in education to solve some emergent economic problems but ultimately he pushed to regenerate the work cult. His programme of Nai Talim and the compromised form of Basic Education is the true beginning of the conflict between two cults 'The Work Cult' and 'The No-Work Cult'. 'Work Cult' should not be equated to the Worker Cult. The conflict between the two cults is still in the process. Gandhi absorbed many ideas from the World Culture. The concept of 'Bread labour' is one of those but it is still useful. Only a fresh interpretation is needed.

Through the decades of this struggle, followers of the 'Work Cult' took up several strategies to foster the cult. They made necessary innovations to work out the strategies. On the other hand, the basic tools of curriculum, administration

and certification being in the hands of the followers of 'No-work Cult', contrary strategies were evolved to defeat all attempts

Before we enter into the story of the struggle, the basic characteristics of the two Cults need to be clear to us. Without loading the paper with references and quotations, I am inclined to present my own ideas that have evolved from observations, experiences and researches. According to the 'Work Cult' life is a process of living and the bliss of life is in the living. The end product of the process is not much important. Life is growth and expansion. Both require action. The objective of living today is living tomorrow. By improving living the bliss can be increased. This requires the growth and expansion in the ability to live. These come only through work. Work cannot be equated to physical manipulation of matter, energy and relations alone. This is equated to the integrated process of all the functions-Cognitive, Affective, Intuitive and Psychomotor. Work alone can provide scope of integrating the abilities in all these areas. Education is a process of growth of the whole man. This world in its totality is the environment. Hence Life, Education, Work and the World are the four facets of existence.

According to 'No-work Cult' the bliss of life is the end product of living. It is separate from both life and living. The bliss can be increased by reducing the needs of life. This is possible by gradually reducing the needs and relations, ultimately renouncing all needs and all relations. Alternately the bliss can be increased by meeting the needs thorough consumption. For consumption commodities, material or energy, are necessary. The social machinery can be used to acquire the commodities. For this, work is the weakest means. So non-work means are to be manipulated. The total life time is fixed. Work consumes more time than the alternate means. So acquire the alternate means to increase enjoyment by increasing the commodity available and the time for consumption. These people found the alternative in direct or indirect exploitation and violence. To the first group, work is the source of bondage, so is to be avoided. This group exploits the society by depriving their own selves. To the second, work is a drudgery, so it is to be avoided. This group exploits the society by depriving other members of the society of the result of their work.

I begin the story of the conflict from the days of Basic Education. Gandhi and his 'Work Cult' followers introduced the strategy of educating the child through productive work. The other group at once introduced the concept of self-sufficiency of 'Education through craft' and insisted on financial self-sufficiency. This transformed the craft centered education into a child labour institution. The dominant group of 'No Work Cult' for the political use of the fad introduced the second element 'the trained teacher'. A follower of the 'No-work Cult' was recruited and given a short orientation to physical manipulation of some work, a craft and work management. As a result, the teachers become managers of child labour. The third element that they introduced in the field was the concept of education through a single craft. The false slogans of integration and correlation went with it. The innovation became the object of ridicule.

Later, assessment committees had been working to make a review of the

situation. The committees had been necessarily membered by persons from 'No-work Cult'. They looked into lapses and failures but failed to identify the causes. As faithful disciples of the West, they looked for the tangible product, material and cognitive (student achievement), but carefully avoided to look for the growth of abilities, which is the objective of 'Work Cult' education. For the lapses they peeped into the surface indicators but failed to enter into the crux of the problem. The committees built up statistics but failed to focus on the individual. Even as early as in 1938 village Basic schools could be located at the centre of which there had been a person of the 'Work Cult'. The school and its extended influence had initiated a transformation of the village community. It made many adjustments and minor changes but fostered the Work Cult in its pupils.

They made the second conceptual innovation within the strategy. They introduced the concept of meeting the basic needs and work to meet these basic needs as the nuclei of the education programme. Gradually the needs were streamlined. But the other group insisted on a complete obedience to the curriculum. Many made the compromise, very few went off the track. They had been treated by the education authorities, even in states where followers of Gandhi governed, as pariahs.

War emergency provided a boost to the 'Work Cult'. A large proportion of 'No-work Cult' people entered work for bare material benefit. Many emergency short work training courses were opened by different agencies. Interaction with the work loving people of the West, particularly the Americans, initiated a large group to the sheer joy of work.

Although the Sergeant Scheme was formulated, a real attempt for the introduction of work into liberal education was not made. Post-war depression of employment introduced many young people into various forms of work.

From personal experience and observations, some important points could be identified, viz

- Early acquaintance with tools and techniques orient children to work. This was later borne out by introducing purposeful and life related work in pre-primary schools. Those who came to secondary school from this group took to work more readily than others, even though both groups had the same primary education.
- Need motivates children to work. In a poor nursery school the teacher could not provide play materials to children but made his own tool kit and services available. Children often used these tools to make their own play materials. Later, in secondary schools many of these children were found work prone.
- Compulsory and rigid work programme develops an attitude unfavourable to work. In a Basic school of the thirties, spinning was an essential part of the daily programme. In another primary school the teacher being work oriented always invited children to work with him. They had a wider work experience. In the secondary school where

both the groups went, primary school students were more work prone

- Alternate uses of the same tool, appreciation of alternates in technique, content or mode, motivate innovation

Political independence changed the Indian scenario. Motivated by some forces the Indian Government decided to introduce Basic Education at the lower levels. By a Government order existing primary schools were renamed as Basic Schools and the Basic Education curriculum was imposed on them. Teacher educators were selected and invited to Sevagram for orientation. Teacher Education programmes were introduced at two levels—Junior Basic School teachers and Senior Basic School teachers.

With the administrative induction of a changed Culture Frame, without a real transformation of the value system of the implementing population, the existing cult conflict was brought to the forefront. The government-initiated innovation of induction to a new cult through short term orientations was found to be less effective. Some of the national leaders went so far as to say that the mass introduction of Basic Education was a hoax. Others expressed the view that Basic Education, as it was practised at the time, was a fraud. Some others even said that the step was a fabricated action to appease Bapu, Babu and the people. But the period between 1947 and 1957 was a most fertile period of innovations introduced by individuals.

Some elements of Basic Education were introduced voluntarily into the primary or secondary school programmes. An example is of the cleanliness programme in the classes. Students readily responded with the teacher as a participant. Named 'Shrama Dan' some teachers with a collaborating group of students, were found soiling their hands and toiling hard to render social service by repairing and constructing village roads, etc. When they offered co-operation to student groups of other schools to organise exhibitions etc. at their end or to repair and develop their playground, the spirit of work was found to be spreading. Later many of these students entered vocations and professions which required psycho-motor work.

Mention may be made of some other points emerging out of these experiences. Organization of voluntary productive and creative work motivates one to work, removes tool and technique shyness, and helps change the attitude towards work. Early orientation to tool making, tool renovation, freedom for technique alteration develops favourable attitude to work and innovation, and encourages innovative thinking.

The Indian educational situation changed with the report of Secondary Education Commission in the mid fifties. Two parallel patterns of secondary schools came into existence. Craft was introduced as a core subject but to be evaluated internally, not to be considered for final School Leaving Certification. This introduced again a wide range of practice and innovation.

Allocation of money is very easy, and recruitment of personnel is also easy.

when the criteria of selection are in accordance with the existing societal ethos, but transfusion of a cult is not so easily done. We found many typical situations. Some are presented here. (a) When it became known that a large amount of money would be made available to senior Basic and secondary schools for purchase of craft tools, equipment and materials, a mushroom of agencies grew to sell these. Many went round to help spend the money in purchases. The result is dismaying. One headmaster, during the stock taking to report the utilisation of allocated money, found that while he had the programme to introduce wood craft, the purchaser and supplier had supplied equipment for smithy and sheetmetal work worth about Rs 40,000/-. The school introduced wood craft and the teacher taught it on the blackboard. Another school had the intention to start woodcraft and it was later found that the tools supplied were of so poor quality that after two months students preferred to do something else. (b) Learning that a large number of craft instructors with at least six months' training in a specific craft with School Leaving Certificate, would be recruited, a good number of institutions were immediately opened to provide the necessary training. In most cases the training was theoretical. Such trained personnel on being recruited took to talk and chalk method of teaching craft. Some serving teachers already with a work bias, formed during their primary education in Basic schools, were frustrated with this training and the frustration spread to the whole programme of craft teaching. Some of them with a work bias opted to teach craft and self-trained themselves to do so effectively. With the recruitment of the scheduled craft teachers, student interest and activity shrunk to the knowledge of tools, equipment etc. (c) Schools with a large subject load were happy to allocate only one period at the end of the day. It was found that in most cases craft class provided a scope of an early end of the school day. Some teachers, unhappy with the situation, requested to be allocated the last period on Saturday so that they could extend. In these cases very few students wanted to leave early. In some schools the craft teacher being interested worked in the school workshop during his leisure hours and even after or before school hours. Many students were attracted and joined him before or after school hours. Many of such students in their later lives became work biased.

With the diversification programme three types of vocational institutions were opened. Some admitted students after class VI, some after class VIII and some others after class X, while the polytechnics accepted pupils after class XI. Most of the teachers were work specialists but belonged to the 'No-work Cult'. They were good service people and their service attitude was imbibed by the students. As such they wanted employment after the training and very few had the desire to enter self-employment. They failed to develop the 'Work-Cult'. The employment market being saturated, these institutions gradually withered. A few stray institutions which were lucky to have teachers with 'Work-Cult' extended the courses and became production and service-cum training centres. Many students from these took to self-employment.

Some fresh points emerge for consideration from these experiences, viz.

- Early induction to work helps in the making of an appropriate work teacher
- Only tools of quality can retain student interest in work and help develop work attitude; tools of inferior quality develop unfavourable attitude.
- Introduction of personal tool kit at the lower level and its constant use help foster work-cult.
- Work culture can only be infused from person to person through close integrated work interaction.

Gradually, the 'No-work Cult' people absorbed the shock and fastened their belt and raised their voices. Early diversification was decried, as also the core programme. Another issue raised was whether Basic Education up to class VIII was compatible with the modern diversified education programme?

An experiment in the field showed that (i) end-on attachment of the two is not possible. (ii) the two programmes could be successfully dove-tailed to make both effective. (iii) to dovetail the two programmes some organizational changes are necessary in the programmes. The required changes were . (a) instead of conceiving the Basic Education as central around a single productive craft such as spinning and weaving, the emphasis must be shifted to the only common craft 'Living in the school community'. The so called crafts may be easily incorporated into it. These crafts were classified as (i) essential crafts, and (ii) subsidiary crafts. Essential crafts incorporated the activities in the five need areas and were compulsory. The five need areas were. (a) Food—providing scope for food production and use. (b) Clothing—providing spinning, weaving and other activities. (c) Shelter—providing construction, repair, maintenance of the houses, (d) Health—with activities like cleaning, beautification, sanitation etc. and (e) Recreation and Creation incorporating organization, management, performance etc. of functions and festivals in the school community. Every student had to work on a project basis to perform his part in the programme. In this part no systematic training in any craft was given. In the area of subsidiary crafts, a specific craft like weaving, smithy and sheetmetal work, carpentry, horticulture were taught systematically. It was found that the practice in the first motivated students, to take up the second, and proficiency in the second fostered their growth in the first. Most students became more work oriented and innovative. The selection of students was more valid to allocate them into diversified courses. They continued the same craft up to class X and developed a minimum standard of proficiency. They were more attracted to work oriented jobs and education. The teachers and students were motivated to production and service. This resulted in many taking to self-employment after further training. Those students who went for higher education were equally successful.

From the experiences of this experiment some other points emerge for consideration.

- Work based curriculum transacted through integrated school programmes, induces children to 'Work Cult' as well as to 'Education Cult'.
- Integration and correlation among textbook subjects are neither effective nor useful. Life and living in the school community can be utilised as the platform for integration.
- Adopting single craft as the centre of the curriculum is a dogma only. All curricula need be experimentally evolved. Ready-made curricula are not very valid.
- Work and life-based school programme develops the abilities along with the total personality and scholastic knowledge.

Some teachers who had been working in the experiment without formal teacher education were deputed to P.G.B.T. courses. On their return they found it difficult to take to work programme. Their attitude to work, innovation and experiment had become lukewarm.

To verify the change a research study was undertaken. It was found that the attitude of the trainee to craft and work after training was more unfavourable than when they entered the course. The attitude of PGBT trained teachers was no more favourable than the attitude of the trained BT teachers. The attitude of PGBT teachers having Basic education up to class VIII was more favourable than that of PGBT teachers having non-Basic education. The inference is

- Short term (one year) teacher education programme does not change the cult and often develops an aversion to work.
- Short term (one year) teacher education programme strengthens the 'Work Cult' of those who in their childhood were induced to work.
- The PGBT programme as it existed at that time was no more effective to orient the teachers to work than the academic BT course.

The findings raised some more questions and another research study was taken up. Five types of schools were in existence side by side. The types were.

- A Senior Basic Schools
- B Extended Senior Basic Schools (Class X or XI) with Basic School activities in higher classes as well.
- C Extended Senior Basic Schools (Class X or XI) without Basic School activities in higher classes.
- D Junior High (Non-Basic) Schools
- E Extended Junior High Schools (Class X or XI)

The findings showed that even in scholastic achievement, students from schools with Basic Education bias were superior to the other groups. Among the schools with Basic Education bias, students from those which retained Basic Education activities in higher classes were superior. In the development of personality traits, the same order was found. In comparing attitude towards work and interest in work, students from Group B schools showed maximum favourableness, whereas

students from Group C schools showed unfavourable attitude towards work. This points to.

- Not the teaching of a single craft but multi-dimensional work in purposeful activities foster 'Work Cult'.
- A continuation of activities and work is necessary from 6+ to 16+ to inculcate the 'Work Cult'
- Activities do not hamper scholastic attainment but foster it

In the meantime the scenario of Indian education had another change. The Kothari Commission report was published. The word craft had lost its aroma. The attention was diverted to manufacture and necessary education for workers for different functions in manufacturing industries. 'Work Cult' became confused with 'Worker Cult'. The new objectives of work were enunciated and the term Work Experience came in.

There had been attempts by the Ishwar Bhai Patel Committee, NCERT and the state education bodies to define and redefine Work Experience and two poles gradually emerged. At one pole it became known as SUPW, while at the other it was redefined as Work Education. NCERT took up a set of Curriculum Research Projects to streamline Work Experience during the mid seventies. One of the project groups faced the questions.

- 1) What is to be taught if Work Experience is to be treated as a subject?
- 2) How is it to be evaluated to incorporate the score into the School Final Examination marks for certification?
- 3) Who is going to teach and evaluate?

Through the Project work, teacher seminars, and orientations, etc. the questions were answered and they were:

- 1) Work Experience or Work Education cannot be treated as a textbook subject. Like communication it is to be treated as an integrating factor and a focus in the school programme. All the teachers and students should get involved in the programme. That makes the life of the school community an integrated and enjoyable one.
- 2) Productive work in many forms can be taught and practised. As storing and marketing of the product is a problem, the production should be need-based and preplanned by the producing student-teacher group for direct consumption.
- 3) When the criteria and mode of evaluation are made clear, every teacher can help in the evaluation of the product. Every teacher as a participant observer can do the process evaluation. The cohort teacher or class teacher can help in keeping the records.
- 4) Specialist work teachers are necessary. With the help of appropriate agencies every teacher can be induced to some work of his interest. He may help in his area of interest.

- 5) A curriculum frame on the basis of student age, the material to be handled, the tools to be handled and the complexity of the work, may be evolved with sufficient freedom to select the work items.

The 'No-work Cult' people in the bureaucracy in the name of efficient management and parity, imposed a specific Work Education or SUPW teacher on the school staff. The result was the withdrawal of the general staff from the scene. It became the domain of a specified expert with a much lower salary scale. Most of the craft teachers of the multi-purpose schools were transformed into Work Experience teachers. It became humanly impossible for one teacher to help the students, in a school with 1000 to 1500 students, to work. As some Boards of Secondary Education decided to incorporate the WE marks in SF examination, all emphasis was laid on the examination after classes IX and X. In the process of streamlining the examination, the spirit of the programme was killed. The emerging points are:-

- To induce 'Work-Cult' all the teachers and students can be and should be involved in work-pregnated integrated school programme. A congenial work environment has to be created and maintained in the school
- Evaluation, if to be used as a motivator, must be judiciously and more integrally used.
- Although a suggestive curriculum frame may be made available, it must have sufficient flexibility to meet the needs and resources

This project raised some questions as well viz

1. Can an integrated teacher education programme orient classroom subject teachers to Work Cult and make helpful teachers to integrate school programmes?
2. Can teacher trainees be induced to learn a craft to a level of minimum expertise?

Vinaya-Bhavana in its T.E. programme had many activity and service components. It provided the trainees some intensive training in a craft of their choice.

After the project to find answers to the issues and questions, the Bhavana B.Ed. curriculum was recast

- a) A core common experience in work, work management planning, managing and living an integrated institutional programme was to be presented to all the trainees, irrespective of their discipline
- b) A more intensive orientation programme in a craft of the choice of the trainee was scheduled to be given.
- c) A theoretical orientation to work experience was also scheduled.

The time allocation was as follows:

	<i>in hours</i>	<i>in p.c</i>
Total in campus teaching hours	700	100

Hours devoted for a)	39	5.57
b)	180	25.71
c)	20	2.85
Total hours in WE	239	34.13

In a follow-up study, the attitude of teachers trained during the period between 1978-1984 was found more favourable compared to others. Headmasters of employing schools revealed that trainees from Vinaya-Bhavana made better WE teachers and helpful members of the staff. They were of opinion that Vinaya-Bhavana trainees made better subject teachers also. In their view Vinaya-Bhavana trainees were more competent and helpful in planning and conducting integrated school programmes.

As answers to the above questions, the following points emerge:

- A higher emphasis on WE programme (34.13) p.c. does not reduce the effectiveness of other competency programmes. It rather increases it.
- An integrated campus programme with higher emphasis on work activities and services, orient teachers more effectively to integrated school programmes.
- A core work programme with theoretical orientation, exposition and demonstration of work, free practice of work projects, helps to lay the foundation of Work Experience.
- An intensive practice in any craft supported by the core programme fosters interest in learning the craft more intensively.

From the story narrated above some more points to ponder emerge

- A. What institutional infrastructure is necessary to inculcate the Work Cult?
- B. How to solve the personnel management problems?
- C. What changes in the curriculum and annual school programmes are necessary?
- D. What should be the pattern of teacher education to meet the needs?

The objectives of Work Experience in schools up to class X may be generalized as :

1. Inculcation of Work Cult in all students.
2. Preparing them for a vocational and self-employment training after 14+ i.e. Class VIII
3. Development of a higher order of preparedness for vocational and self-employment training after class X.
4. Development of a higher order of preparedness for professional education after H.S. or class XII

Keeping the objectives in view some suggestions for renovating Work Experience programme in schools and the teacher education

programme may be made. These do not require any change in the super-structure of the secondary education but require changes in the institutional infra-structures. Some of the issues are discussed below.

Curriculum: (a) A continuous core programme of work and activities is to run through from 6+ to 16, i.e. from primary to secondary stage. This programme should incorporate work and activities related to school round the year, in campus and out of campus service activities with work as an essential part. Instead of craft based work, these work units should always be project based. The projects are to be selected according to the needs of an integrated school activity like observation of the Republic Day, annual fair, sports meet, etc. All teachers are to be involved in this core programme, if necessary they should be oriented to it. (b) Each secondary school should have several expert teachers and adequate facilities to provide training in several vocations. The course should be for two years leading to a certificate examination. Production, sales and service should be incorporated into the programme. Each teacher of the school should be associated with some vocation. (c) Vocational higher secondary schools should be opened in addition to post secondary vocational training institutions. The higher secondary course should necessarily be oriented to training for self-employment. Production, sales and service should be incorporated in the programme. The course should incorporate management of vocation and entrepreneurship. Some expert teachers will also be necessary. The curricula for (b) and (c) should be system based.

Activities: For (a) the core programme, no rigid programme schedule can be given. School activities involve all the students and therefore, it should be considered to be longitudinally organized. The group work for some activities may be similarly organised. (b) Vocational training programme should include items to meet the local work demand like housewiring, plumbing, agro tool making and repairing etc. (c) Vocational training at the H S level should include items like radio and TV maintenance and repair, transistor, AV gadget—use maintenance and repair, automobile mechanism and repair, etc.

Teacher Education This is most important for the successful implementation of the programme

- (a) Teacher Education for the primary stage should be recast with work and activities more emphasized. Trainees should be recruited after class VIII selection should emphasize work attitude. The course should be an integrated one of three years leading to a certificate valid for direct recruitment. The programme should be institutionally integrated within a broad framework.
- (b) In order to evolve a work cult, all the teachers are to get involved in the school work programme. T.E. for secondary education should be of two years duration after graduation. The syllabus as well as programme should have at least 33 per cent weightage on Work Education and institutional activities. The same syllabus will be useful

for post-graduates.

Teachers at all levels should have 12 weeks refresher course in Work Education every three years to acquaint them with modern tools, techniques etc. There should be a special inservice course for innovative teachers.

Some Suggestions to Improve Work Experience Programme at the Primary Level

SHRI G S SEHGAL

S L (PHY.) EDU.

DEPTT M.C DELHI

Ph D SCHOLAR (WORK EXPERIENCE)

DELHI UNIVERSITY

DELHI

Introduction

Manual work is an essential element in forming a person's character. It develops the whole man-body, mind and spirit, and has a disciplinary value for one's life and creates self-confidence, self respect and self-reliance. If a school can provide a programme of manual labour, it can help the child to have the needed opportunity for initiative, creativity, co-operation and freedom. A child would be willing to indulge in it because it satisfies his inquisitiveness and provides answers to many of his questions.

Work Experience programme which often involves manual labour is intended to provide a variety of joyful activities at the primary level. It is aimed at giving the future citizens a keen sense of personal worth, dignity and efficiency and at strengthening in them a desire for self-improvement and social service.

Education Commission (1964-66) proposed linking education to productivity with a view to achieving the national goals. It is only the productive capacity of its people that can enhance the wealth of the country. The National Policy on Education (1986) has once again emphasised the need for Work Experience and considered it an essential component at all stages of education

Concept of Work Experience at Primary Level

At the primary level the Work Experience curriculum lays stress on character

building and formation of positive attitudes in the child. At this stage, the thrust of Work Experience is on fostering in the child healthy living practices, good work habits and desirable social values. The total school curriculum has to be geared to this end.

Suggestions

Given below are some suggestions which, if implemented, will improve the programme of Work Experience in primary schools.

(i) Basic Infrastructure

Primary schools should be provided with suitable facilities for the implementation of Work Experience programme. They should get required tools and instruments to conduct the programme. Raw materials and other accessories should also be regularly supplied to the schools for practical work. Permanent arrangement for procuring and storing of raw materials and disposal of end products should be made by the Department.

(ii) Procurement of Funds

Regular grants should be made available and placed at the disposal of headmaster for the implementation of Work Experience programme in primary schools. Formalities for the utilization of this amount should be made very simple so that the raw materials and other inputs could be purchased from the local market.

(iii) Selection of Activities

It has been observed that schools situated in the same colony pursue different types of activities. This needs change. Activities should be selected on the basis of a survey and also keeping in view the needs of the community. Some of these activities may be compulsory and others optional. It will bring uniformity in this programme.

(iv) In-service Teachers Training Programme

Primary school teachers should be provided in-service training from time to time. After the training a regular follow-up programme and if required, necessary feedback should be provided by the educational authorities. A phased programme of Work Experience should be started on experimental basis in some schools. After necessary evaluation other nearby schools may be added to this movement.

(V) Volunteers to help Work Experience Programme

They are following

- I College students (NSS Scheme)
- II Elders from the Community; and

III Child to child (Senior to Junior)

In order to help the classroom teacher services of some college students and those having experience of work, who volunteer to help for some hours, should be obtained. These helpers will not only aid and assist the teacher but also imbibe leadership qualities themselves.

(vi) *Pre-service Training Programme*

Teachers training colleges and elementary teachers training courses (E.T.T.) should also put more weightage to this curricular area. If this subject is carefully and sincerely practised in the training college, this will go a long way in improving the Work Experience programme in primary schools

(vii) *Annual Inspection*

Regular annual inspection by the concerned inspecting authorities will improve the fate of this subject. During the inspection practical activities should be watched and a pragmatic inspection note should be entered in the school log book. In case the product prepared by the children is something extraordinary, an appreciation letter should be given to the teacher, and a copy of the same should be sent to the head of the institution.

(viii) *Demonstration by Experts*

Sometimes experts in different activity areas may be invited to provide new experience to the teachers. Teachers from nearby schools should be requested to attend the demonstration. This programme will add knowledge and confidence among primary teachers.

(ix) *Award and Incentive*

Teachers who are devoted and dedicated to this programme should be awarded by the department during the annual function. This reward will not only serve as an encouragement to the teacher but will also motivate other teachers to take up this programme seriously in their own schools. This will also give an impression that the services of a good teacher are recognised by the Department.

(x) *Continuous Comprehensive Evaluation*

Continuous comprehensive evaluation is very essential for the promotion and upliftment of this curricular area. It should be a continuous approach in a very systematic way. Practical work should be given more weightage than theory. At the same time the group work evaluation should also be taken into consideration. This will lead to the development of social skill and cooperative living.

Mandal Vocational Education Centres

SHRI P SUDERSHAN RAO
PROF AND HEAD
DEPTT OF VOCATIONALIZATION OF EDN
S C E R I
HYDERABAD

Introduction

The experience gained in introducing vocational courses in 345 schools of Andhra Pradesh during the years 1984-85 and 1985-86 covering 23 districts, clearly indicates that there is a need to make the courses terminal in order to make them meaningful and more professional. No vocational training will be possible unless certain basic infrastructure in the form of workshops, tools and equipment and good trained instructors are available. After a review of the scheme of vocational education, and in order to achieve the maximum return on the proposed investment, it was proposed (during the year 1987-88) to introduce vocational courses in Mandal Vocational Education Centres, to be located at every mandal headquarters. Mandal being a growth centre would be more advantageously located and several other schools and colleges can make effective use of the facility being provided.

Government have accorded permission, on 5.1.88 for opening of 28 Mandal Vocational Education Centres, in the first phase (at the rate of at least one workshop for each district in the 23 districts with an estimated cost of Rs. 6.00 lakhs for each building). All the 23 Mandal Vocational Education Centres (Workshops) are in the final stages. One such Mandal Vocational Education Centre has already started functioning at Secunderabad Mandal. Government has also sanctioned 20 more Mandal Vocational Education Centres for 1988-89. It is proposed to establish about 1,104 such Mandal Vocational Education Centres in the next ten years and the scheme will be extended to all the Mandals in a phased manner, year after year, depending on the resource available.

It is envisaged to introduce 4 to 6 courses (both from existing and proposed new courses) related to different streams that have an immediate relevance to the prevailing socio-economic conditions. Four high schools nearby the Mandal Vocational Education Centres will be attached and provided with training facilities in the workshop. All students of these schools have to study at least one of the vocational courses offered in that workshop.

The Mandal Vocational Education Centres will be provided with adequate required machinery and equipment. These centres will be provided with adequate

infrastructural support as detailed below

Instruction

Textbooks for all the 11 courses introduced have been prepared in Telugu for classes 8 to 10 and have been made available to students. The handbooks, instructional aids and video cassettes etc., for teachers were under preparation for more effective classroom instruction.

Selection of Teachers

For providing quality instruction, it is necessary that the process of selection of instructors is more objective and less emphasis is given to formal qualifications and certificates. Suitable qualifications have been prescribed to attract better skill oriented staff for imparting training to the student. It is also proposed to appoint a well qualified person on deputation from a Government organisation or by taking a highly experienced retired person who will be assisted by highly skilled workers excellent in their trades.

Since the Mandal Vocational Education Centres are proposed to be essentially training centres catering to the requirement of 3 to 4 regular schools and also to the children of non-formal sector, drop-outs etc., it is expected that they would be functioning through out the day. Therefore, adequate staff is proposed to be appointed for every Mandal Vocational Education Centre offering 4 trades as indicated below:

1. Senior Master	1 Post
2. Course Co-ordinator	4 Posts
3. Skilled Instructors	8 Posts
4. Accountant-cum-clerk	1 Post
5. Helpers and attenders	2 Posts

The over-all responsibility and supervision is proposed to be given to the headmaster of the school where the Centre is located, who will report, review and be responsible for running the courses at that Centre and ensure accountability. For this additional responsibility the Headmaster may be given an honorarium of Rs 100/- per month.

Inservice Training

It is also proposed that all the instructors would be given thorough in-service training in content and methodology of teaching these courses with the help of resource persons. Funds have been earmarked for the expenditure involved.

Accommodation

Adequate accommodation would be provided, which will enable the Centre to function well. It is proposed to have a separate building for each centre with a

plinth area of 4,636 Sq. feet. adequate for running 4 courses and for stores, staff, etc. The cost of the building is estimated at Rs. 6,00,000/- Another Rs 50,000/- is proposed to be provided for purchase of furniture and library books.

Equipment & Machinery

The equipment and machinery required for each course will be provided for 20 to 30 students to be able to work at a time, as per the recommendations of the expert committee. It is also proposed to enrich the centre with modern equipment at a later stage. As per the recommendations, the unit cost of equipment and machinery required for 20 to 30 students in every course is as indicated below -

1.	House-wiring & domestic appliances	Rs 50,000 00
2	Knitting, garment making, darning, laundry and dry cleaning	45,000 00
3	Radio, transistor and T.V. repair and servicing	1,00,000 00
4.	First aid, general medicine, nutrition and medical store management	25,000.00
5	Horticulture including floriculture	38,000 00
6	Composing, printing and book-binding	2,00,000 00
7.	Farm machinery and servicing and general machine	1,30,000 00
8	Poultry	50,000.00
9.	Pisciculture	50,000 00
10.	Carpentry	1,00,000 00
11	Sericulture	15,000 00

Raw Material

It is estimated that on an average the amount required for raw material is Rs 35/- per head per course per annum. The material shall be purchased and supplied to all the Centres by a Committee consisting of subject experts available at the districts.

Financial Implications

It is estimated that each Mandal Vocational Education Centre will cost approximately Rs. 14.50 lakhs of which Rs. 12.0-lakhs will be towards non-recurring and Rs. 2.5 lakhs towards recurring items as indicated below -

1.	Building	Rs. 6.50 lakhs
2.	Furniture	0.50 lakhs
3.	Machinery & equipment for 4 courses	4.00 lakhs
4	Staff	1.80 lakhs
5.	Recurring expenditure towards raw material	0.50 lakhs

6. Contingencies such as water, postage, electricity and stationery	0 20 lakhs
Teaching aids and learning material	1.00 lakh
Total	14 50 lakh.

Video Lessons

It has been decided to supply video cassettes to every Mandal Vocational Education Centre on the courses offered, so as to make the classroom instruction more effective. Rs. 4.65 lakhs have been sanctioned for preparation of video lessons in the identified vocational courses. The preparation of video lessons are in progress. Each centre will also be provided with a video cassette player which will be purchased and supplied shortly.

Multipurpose Activities of the Mandal Vocational Education Centres:

Although a Mandal Vocational Education Centre is provided to impart vocational training to the attached 4 schools offering formal education, it is proposed to conduct certificate courses for school dropouts in the evenings or during leisure hours. It is also proposed to extend the facility of vocational education to the needs of non-formal education and adult education groups by suitably designing the structure of the syllabus. Each of the courses would be terminal in nature and will be of sufficient duration to enable students acquire necessary skills, that will make them employment worthy or to have self employment in their fields. Thus, every Mandal Vocational Education Centre at the Mandal headquarters will be a multipurpose training centre imparting different levels of skill to different groups of students based on their educational attainments. Vocational education is thus seen as one of the most important and effective means of ensuring that investments made in educating a person is not wasted.

Linkages.

Sufficient care has been taken in structuring the syllabus and syllabus content under each course, so that the vocational courses offered can provide a link with Intermediate +2 (vocational courses), Diploma in Engineering or I T I. Thus, a student under vocational education can also have continuous education in the appropriate field of vocational trades in their future career. It is also proposed to liaison with the industry so that the school passouts/dropouts with vocational training can have a suitable apprenticeship training for their future absorption as skilled/semiskilled workers.

Benefits

It is estimated that per year 3,33,280 high school children will be benefitted when each Mandal Headquarter is provided with a Vocational Education Centre. These students are expected to achieve a skill so that they become more employable

Madhya Pradesh Experiment on Work Experience

SHRI P N RUSIA
RTD JOINT DIRECTOR
NFE (MP)
TIKAMGARH-472001

Problem

In pursuance of the recommendations of various educational committees and commissions in the past, the state Education Department made the provision of teaching craft or Work Experience in their curricula and started its implementation accordingly. Even today there is pressure over the State Government from the Government of India for introducing 10+2+3 system of education. The 10+2 system lays great stress on the teaching of craft and vocations. Almost all the states have introduced this new system but the teaching of craft or vocation has not been able to achieve the desired success due to the following factors.

- i) There is a paucity of sufficient capital to start crafts or vocational training and continue it thereafter.
- ii) The problem of marketing of products.
- iii) There was a doubt in the minds of the people that the children could not produce goods good enough to compete in finish and quality with commercial goods. They also apprehended a great loss due to wastage done by unskilled hands.
- iv) There was no provision of motivation and incentive to children and teachers.

The factors mentioned above were at the root of failure of Basic Education, Work Experience and vocational education. Keeping in view these factors, Education Department of Madhya Pradesh decided to take up an experiment in 1978-79 to find out:

- i) Whether a source for capital can be located;
- ii) Whether the problem of marketing the products can be solved;
- iii) Whether it can be proved that the products of the students compete with the commercial goods;
- iv) Whether an effective provision for motivation and incentive to the children and teachers can be made;

- v) Whether holding power of the school can be enhanced through the experiment

Exploring Source for Investment and Possibility of Marketing

From the experience of earlier schemes it was made obvious that it would not be possible for the Education Department to have separately earmarked funds in the state budget for the proposed scheme. It was, therefore, felt that an agency having commercial base be approached and its cooperation regarding investment sought. This thinking was in line with the recommendations made by the Education Commission (1964-66). The Commission had clearly spelt out that work education should not be confined to classrooms only. As far as possible, school be taken out to farms and factories. This idea was discussed with some of the factory owners as well. But a positive response was received by the Education Officials only from Madhya Pradesh Khadi and Village Industry Board. Shri. Y.W. Chaturvedi was holding the reins of the Board as Managing Director when the proposed scheme was discussed with him. He was although fully convinced of the utility of the production based scheme in schools, yet he was not able to find out how the Madhya Pradesh Khadi Board could help in the matter.

He pleaded that the Board was facing problems in marketing goods it was dealing in and under these conditions, additional production would simply put the Board to further financial loss. After a series of meetings it was decided that under the proposed scheme only such items would be taken up for production as had enormous annual consumption in the Education Department itself. The items that were listed for production were Tat-Pattu, chalk stick, sealing wax and school furniture. It was also decided that the Board would invest money on raw material and equipment.

Ensuring Quality

The State Government accorded permission for the scheme on the condition that the goods produced by the students would in no case lack quality and finish as compared to those supplied by the Madhya Pradesh Laghu Udyog Nigam.

Restrictions were imposed by the State Government as to sizes, weight and rate of the material. It was therefore decided that the work be carried out in schools under the guidance of trained persons. As the persons working as craft instructors in schools were not trained in the crafts selected under the scheme, the Education Department offered to take up the responsibility of organising training camps while the Board agreed to provide technical expertise. Safe-guards were taken to avoid wastage of material and mis-utilisation of money.

Provision for Incentives

The Education Department already met with a sad experience in its endeavour to introduce vocational training. The absence of economic incentive to the client

and the teacher was the cause that led to the disappointment. It was, therefore, decided that the children to be engaged in production under the scheme be given economic incentive sufficient to fulfil their educational and other domestic needs. Without the craft instructors' perseverance and his will to work, it was visualised, the scheme was not going to be a success. Hence it was decided that craft instructors be also given incentive money on the work they would get done by the students.

Motivating the Guardians

Manual work is still conceived as an activity done by menials for livelihood. It was feared that since the proposed scheme involved manual labour by the children, guardians would not approve of it and might show reluctance to allow their children to participate. As a measure to motivate the guardians, it was decided that all available mass media viz radio, newspapers, door to door contacts etc. be geared into action.

Implementation

The programme was formally launched in October 1978 on an experimental basis. In the beginning 6 centres for Tat-Pattu and chalk were established. Production of these centres started in January 1979 and within 2 months the children sold goods worth Rs. 33,471.00 and Rs. 3770.15 was distributed among them as remuneration.

Expansion

As the programme showed encouraging results, the scheme was expanded. Centres were set up in each Basic training institute and in higher secondary school in each district. By the end of the second phase of the programme, the number of centres rose to 198. Goods worth Rs. 8,00,979 produced by these centres were sold. More than one thousand children were benefitted. They earned Rs. 67,159.00 as remuneration. During this period chalk making was introduced in one girls higher secondary school of each district.

The scheme was gaining ground and so it was felt necessary to have the facility of stores in each division of the state. It was also felt that alongwith the stores, training centres should also be opened at the divisional level for intensive training of craft teachers of EWL scheme. As such six training centres were started and they were assigned the work of store keeping of raw materials and equipment.

The third phase of the scheme began from December 1979, when a new item of sealing wax was introduced at three centres in Bilaspur district, because raw material 'Lakh' used in making sealing wax is found in the forests of Bilaspur district. The actual production of sealing wax was started in January 1980 and up to the end of 1980-81, the sale of production at these centres was worth Rs. 562.50. An amount of Rs. 112.50 was paid to the school children as remuneration.

The scheme got sound footing and gained popularity. There was pressing

demand from various institutions of the State to introduce one or the other item of the scheme. The K.V.I. Board found itself unable to meet the needs of its expansion. As a result, the Education Department was compelled to look for an alternative and therefore the Department decided to establish a rolling fund for the scheme with Rs. 41 lakhs. With this amount a new item of furniture making was taken up. In 1981 a Centre of furniture-making was started at Khandwa on an experimental basis. The results of this Centre were quite encouraging. The furniture prepared by these children was far superior to the goods supplied by the Laghu Udyog Nigam, Madhya Pradesh and in 1983 the number of centres for making furniture was raised to 3. Within this span of time more than three thousand sets were prepared. The quality and finish of the sets was so fine that the officials of the Education Department approved opening more centres and in 1984 twelve centres in each division were started.

It was felt by now that the craft started so far were useful mainly for boys. Except chalk making, there was nothing for girls. In 1983, a scheme of providing free school uniforms to the girls was introduced by the State Education Department. The Department thought of getting the uniforms prepared by school girls in 1983-84. In a few selected girls higher secondary schools of three Educational Divisions of Indore, Sagar and Jabalpur it was started on an experimental basis. The school girls prepared uniforms worth Rs. 4 lakhs in a very short period. The Education Department has now taken up the work of school uniforms preparation in two centres of each district.

Procedure

1. The Education Department places order for Tat-Patti and chalk to Khadi and village Industries Board, for school uniform to Laghu Udyog Nigam and for furniture to the officer incharge of Rolling Fund.
2. They purchase the material, direct from the government mills or from government organisations and arrange for its transportation to the centres.
3. An amount of Rs. 1,000/- is placed at the disposal of the principal of the centre to be paid to the students as remuneration and for minor repairs of equipment.
4. The goods prepared in each centre is taken by the District.
5. The District Educational Officer sends the receipt of the products received to the Officer concerned in the Directorate.
6. At the end of the year they submit the accounts to the Director of Public Instruction, and get the payment.
7. The remuneration to the children is paid daily or weekly.
8. The bonus (incentive money) is paid to the teachers at the end of the year.

Rates: Remuneration to the students

a) Tat Patti

For making a bundle of Suth weighing 4 Kg.

Rs. 0.40

For filling 21 Ft. Tana	Rs. 0.40
For weaving a Tat-Patti of 20"x1½"	Rs. 3.00
Stitching on both ends	Rs. 0.20
	<hr/> Rs. 4.00 <hr/>

Chalk Sticks.

For making 100 chalk sticks	Rs. 0.20
For packing	Rs. 0.25
	<hr/> Rs. 0.45 <hr/>

Sealing wax

For making sticks	Rs. 0.30
For packing	Rs. 0.25
	<hr/> Rs. 0.55 <hr/>

Furniture:

8% of the sale price @ 16%

Uniforms:

Rs. 4.25 per dress (one frock and one chaddi)

Time given for craft is generally a period of one hour daily. But the EWL centres are kept open on holidays and vacations according to the convenience of the students so that they may utilise the leisure in productive works.

TABLE-I
PRODUCTION COVERAGE AND REMUNERATION

Item	Year	No Produced	Cost (Rs in lakhs)	No of students participated		Total	Amount of remuner- ation paid to the students (Rs in lakhs)
				Boys	Girls		
1.	2.	3	4.	5.	6.	7	8.
Tat Patti	1978-79	23100	7.97	924	—	924	0.65
	1979-80	24200	11.80	1358	—	1358	0.96
	1980-81	41482	14.31	1695	—	1695	1.16

1.	2	3.	4.	5.	6	7.	8
	1981-82	72447	95 99	3045	—	3045	2 02
	1982-83	87547	28 66	3600	—	3600	2 33
	1983-84	52827	18.50	2252	—	2252	1 38
	1984-85	6670	5.00	1732	—	1732	0.27
	1985-86	14493	10 00	2623	—	2623	0 51
	1986-87	29167	17.60	6130	—	6130	0 92
TOTAL		351933	209 83	24359	—	24359	10 20
Chalk	1978-79	25500*	0.38	—	100	100	0 06
	1979-80	37000	0 55	—	148	148	0 09
	1980-81	75200	1 13	—	300	300	0 19
	1981-82	75380	1 13	—	304	304	0 19
	1982-83	13403	0 25	—	98	98	0 03
	1983-84	13005	0 26	—	109	109	0 037
	1984-85	14090	0 28	—	118	118	0 038
	1985-86	15050	0 30	—	127	127	0 039
	1986-87	119000	2 38	—	962	962	0 293
TOTAL		387628	6.66	—	2266	2266	0 967
Sealing wax	1979-80	1876*	0.04	50	—	50	0.01
	1980-81	7500	0 15	100	—	100	0.03
	1981-82	10750	0 37	250	—	250	0 07
	1982-83	28000	0 56	280	—	280	0.11
	1983-84	3601	0.05900	190	—	190	0.05440
	to 1986-87						
TOTAL		51727	1 17900	870	—	870	0.27440
School Furniture	1981-82	100**	0 20	40	—	40	0.02
	1982-83	150	0 30	50	—	50	0 03
	1983-84	4000	8 00	1000	—	1000	0 72
	1984-85	700	1 50	1325	—	1325	0 11
	1985-86	3803	9.60	1100	—	1100	0.73
	to 1986-87						
TOTAL		8753	19 60	3515	—	3515	1.61
School Uniform	1983-84	4000	1.40	—	400	400	0 11

*Packets

**Sets

1	2	3	4	5.	6	7	8
	1984-85	506000	114 00	—	4134	4134	19.11
	1985-86	1000000	215 00	—	10329	10329	32.50
	1986-87	995000	222 48	—	9750	9750	32.34
TOTAL		2505000	552 88	—	24613	24613	84 06
Grand Total	Cost	Boys	Girls	Total	Remuneration		
	Rs. 790 14900	28744	26879	55623	Rs 97 11140		

From the above tables it is evident that a tremendous amount of interest has been shown by the student community towards the scheme. The students have produced goods worth Rs. 790 149 lakhs and earned thereby Rs. 97.11 lakhs.

Since the scheme has been operational in as many as 571 centres, achievement in terms of production, coverage and earning are very significant.

Developing Productive Skill

The achievements of the EWL scheme have served as an eye-opener to those who often say that school children cannot produce quality goods and that goods produced by them would involve large scale wastage of material and time. It is therefore relevant to mention here that:

1. the 'tat-pattis', chalks, school furniture and school uniforms made by the students under the EWL scheme have much better finish and much longer durability than those supplied to the Department in the past by such agencies as Laghu Udyog Nigam and others.
2. Wastage in making of these items has been very nominal and within the limits imposed by the Madhya Pradesh Khadi and village-Industries Board.
3. Time taken by students in completing a particular item has been extraordinarily very low. For example, a student can complete one 'tat-patti' in less than an hour whereas the same 'tat patti' is made in more than three hours by professional workers. Similarly, a packet of one hundred chalk sticks takes only 5 or 6 minutes.
4. in state level competitions the students have set records of making a 20' x 1 5' 'tat patti' in 25 minutes.

Thus the EWL scheme has proved its effectiveness in developing productive skill in students. It has also established its utility in helping the students.

Utilisation of Leisure in Productive Work

Normally, production under the EWL scheme is carried out in the period of

craft allotted in the school time table. But experience shows that the children have been so much charmed with the usefulness of the scheme that even in their leisure hours i.e. out of school hours, on holidays and during vacations they have come to the centres and done the jobs. Thus EWL scheme has been able to create in the students a healthy habit of utilising leisure hours in productive work.

That the EWL scheme has served as an effective tool for developing dignity of labour in the students is evident from the fact that the scheme has attracted not only the poor children but also many of those belonging to upper strata of society. A study of the EWL programme carried out by the Joint Director of Public Instruction, Madhya Pradesh, reveals that the beneficiaries of the scheme belong to five categories of different income group. The number of beneficiaries and their percentage to the total beneficiaries have been shown in the study as under.-

TABLE-II

S.No	Income (Annual)	No of beneficiaries	Percentage
1	Above Rs 25,000	2781	5%
2	Between Rs 18,000-to Rs. 25,000	4449	8%
3.	Between Rs 12,000- to Rs 18,000	11124	20%
4.	Between Rs 6,000-12,000	13906	25%
5	Below Rs 6,000	23,363	42%

It is also note-worthy that on account of student involvement in production work, their studies have not suffered at all. The figures given in the following table bear testimony to this statement.

TABLE-III
SCHOLASTIC ACHIEVEMENT OF EWL BENEFICIARIES

S No	Percentage of marks in the examination	Percentage
1	60% or above	59%
2.	Between 45%-59%	19%
3	Between 33%-44%	18%
4	Below 33%	14%

From the above table it is evident that 59 per cent beneficiaries secured first class marks whereas the percentage of failure among them is only 14 per cent. The involvement of students in the scheme is not the reason for this failure, but it is on account of other factors which need no mention here.

As stated in the beginning the EWL scheme was launched on an experimental basis. Besides aiming at realising certain objectives, it aimed at finding answer to certain issues which formed the hypothesis of failure of all the previous

educational programmes oriented towards production. The EWL scheme has achieved tremendous success as far as the realisation of its declared objectives and finding answers to the issues are concerned.

The Camp Life in the Implementation of S.U.P.W./W.E. Programme

PROF J M SRIVASTAVA
CHAIRMAN,
BOARD OF SECONDARY EDUCATION
RAJASTHAN, AJMER

Work Experience Outside the School

On the assumption that all the objectives of the SUPW/WE cannot be achieved merely by organising activities in the classroom or within the campus of the school, it was decided that the situations should be created outside the schools wherein students can live together, work together and cooperate with each other for doing socially useful productive work. Unless some non-formal and informal situations are provided students cannot work with responsibility, with initiative and with self-confidence. This is the basic assumption on which the programme of camp life under S.U.P.W. in Rajasthan has been introduced. Another important justification for introducing camp activities in the WE/SUPW programme is that camp life provides real and ample opportunities for social service and manual work.

To elaborate this point I should repeat a few of the objectives of the WE/SUPW programme. They are-

1. to prepare pupils to practise and perform manual work individually and collectively.
2. to acquaint students with the world of work and services to the community and develop in them a sense of respect for manual work
3. to develop in students the desire to be useful members of the society and develop essential life related skills to contribute their best to the society.
4. to promote awareness to work for national development, emotional integration, and enable the pupils to perform the desired social service activities.

5. to develop certain values like self-reliance, dignity of labour, tolerance, cooperation, sympathy, self-confidence.

Because of the above reasons, in Rajasthan, the SUPW/WE programme has two main dimensions (1) Classroom learning activities under which pre-vocational activities are provided for four periods per week. (2) In addition to it, it is compulsory for students at secondary level in class IX as well as in class X to attend a 5-day camp. This is essential for them to be eligible for appearing at the Board's examination. His performance in the 5-day camp is evaluated on certain points and grade is awarded to each student according to his participation and performance. It may be pointed out here that achievement is not of such significance as the participation and performance is.

Camp Life

To make the camp life objective-based, the activities of the camp are classified in four areas, viz. (1) Community service, (2) Survey and collection work; (3) Emotional Integration Project Work; and (4) Cultural and recreational activities.

Under the Community services, the activities include growing plants and protect them; doing development work like repairing roads, preparing link roads, digging manure pits etc.; spraying phenyl and kerosene oil over the pits containing dirty water near wells; cleaning of public places. Students cook their own food in groups. They are also given knowledge about vaccine, spreading literacy, small savings, environment, cooperative programme, etc.

Another area of activities in the camp is survey and collection work. Students make surveys and prepare reports. This includes survey of handicrafts, home industries, local agricultural products, various vocations, folk tales, folk songs, idioms, folk lores, illiteracy, educational wastage, vaccinated children. They also collect leaves, insects, roots, stones, feathers, nests, birds, etc. and they are also provided opportunities to conduct environmental studies.

Under the area of emotional integration project work students are divided into groups after the names of great men or states of the country. They are supposed to collect information about the states or the great men. They also present cultural aspects of the concerned states—dress, dramas, painting, folk songs, photographs, etc.

The fourth area relates to cultural and recreational activities under which cultural programmes, literary programmes, camp-fire activities are conducted.

Organising the Camp

For organising SUPW camps a lot of preparatory work has to be done at the school level, for which the Board of Secondary Education, Rajasthan, Ajmer has circulated guidelines. This includes a detailed list of required material, suggestions regarding the location of the camp, and formation of the student groups.

For better coordination and division of responsibilities, the Board has

also suggested a programme schedule for each day.

It has been suggested that the work among students should be distributed in such a manner that every student gets an opportunity to work and learn by turn. For this a class is divided into sub-groups of 10 students, so that activities can be organised sub-group-wise and their responsibilities can also be fixed accordingly. Students work in sub-groups collectively and where necessary they work individually.

Experiences and Difficulties

In Rajasthan, we have been running this experiment for the last three years. As far as the rural areas are concerned this programme is running quite well. But there are some difficulties in organising camp for the schools located in urban areas. There are also difficulties in organising the camps for co-educational institutions, because parents generally do not like that girls should remain out for four nights. Wherever possible a lady teacher even from neighbouring school is deputed to go along with the students in the camp. But if it is not possible, permission has been given to organise the camp in their own school campus. Another difficulty faced in organising such camps relates to the schools having a large number of students in classes IX and X. They have been asked to organise more than one camp for a class so that number of students in a camp may not exceed 100-200

In this way camp life has become a part and parcel of the SUPW programme in Rajasthan. As per the National Policy on Education 1986 about 12½ per cent of the time should be devoted to this programme. In Rajasthan about 9 per cent of the time is devoted to classroom learning activities and 10 full days are devoted to camp activities. This way we fulfil the expectations as implied in the provisions of the NPE 86.

Successful Implementation of Work Experience Programme

SHRI K.K. MAHADEVAN
KERALA WORK EXPERIENCE
TEACHERS' ASSOCIATION
ERNAKULAM-682315

Introduction

The National Policy on Education (1986) gives a very important role to the teaching of Work Experience programme in schools. It is to be an integral part of

the learning process, resulting in either goods or services useful to the community. All states are required to implement the programme in a well structured and graded manner.

In primary classes, the power of observation and cleanliness of the students are to be developed along with the use of hands and mind. In upper primary classes production of materials useful to the community are to be undertaken along with simple craft. In secondary classes production of marketable and useful products are to be introduced. The teaching of other subjects are to be linked with the Work Experience programme so that all the teachers are involved in Work Experience.

Evaluation

Internal and external examinations are to be conducted for Work Experience at par with other subjects. A record book is to be maintained grading the nature of observation, cleanliness and finishing capacity of the student.

Standards 1 and 2. The hands of students are to be used for playing with toys, puppets, etc. Counting of materials is to be done by hands. The students are to be directed to wash hands after work and play.

Standard 3. Simple paper craft is to be used for making play things like boats, bird, kite etc.

Standard 4. Cleaning of classrooms, school premises etc. drawing of birds, pots, trees etc. are to be taken up.

Standard 5. Gardening, cleaning the school premises and bathrooms, etc. Simple paper craft, stitching of note books etc. are to be conducted. Other subject teaching is to be linked with Work Experience programme at this stage.

Standard 6 to 8. Simple craft work like book-binding, electrical gadget, needle work, paper craft, etc. to be taught. Cleaning of classroom and school premises and bathroom are to be done by students.

Standard 9, 10: Pre-vocational Work Experience programmes are to be introduced at this stage; such as agriculture, electrical gadget, wood work, metal work, garment making, book binding, cardboard work, food preservation etc. The "Earn while you Learn scheme" be initiated in activities like manufacture of exercise books, file boards, furniture, umbrella etc.

State Initiatives

The state government has to take initiatives for the development of Work Experience programme in schools.

1. A state level advisory committee is to be constituted in every state with the minister of education as chairman and the director of public instruction as convenor. A special officer for Work Experience is to

be appointed in every state preferably a technically qualified person of the rank of deputy director with overall control of the Work Experience programme in the state.

2. All teachers including headmasters are to be given orientation course on Work Experience for a period of ten days in a year.
3. All training institutions of teachers are to be well equipped for teaching various activities under Work Experience programme and qualified teacher educators are to be appointed there.
4. Examinations are to be conducted for Work Experience just as for other subjects in both theory and practical.
5. Teachers are to be given necessary orientation for an activity before that is introduced in the school.
6. Marks obtained in the examination for Work Experience should be considered for admission to technical and industrial schools.
7. Work shed and equipment are to be provided in each school.
8. Raw materials like paper, wood, cardboard etc. are to be supplied by Government for "Earn while you Learn" scheme.
9. Spot competition for Work Experience and exhibitions are to be conducted at school, district and state levels, by the education department and merit certificate given for each activity under Work Experience programme along with scholarship for higher education.
10. District level and school level advisory committees are to be constituted for development of Work Experience programme

Suggestions

The government of India also have to take necessary steps for the development of Work Experience programme as stated below.

1. A national advisory committee is to be constituted for the development of Work Experience programme with the minister of education as chairman and the director of N.C.E.R.T. as the convener.
2. Raw materials such as concessional paper board, calico etc. are to be supplied for each state for "Earn while you Learn" scheme.
3. National level exhibition and spot competition for Work Experience should be conducted by N.C.E.R.T. every year in different states and merit certificates and scholarships be given.
4. Special grants be sanctioned for each school for the purchase of equipment for teaching Work Experience.
5. National orientation courses are to be conducted for the teachers incharge of "Earn while you Learn" scheme.
6. Marks obtained in Work Experience in the final year examination be counted for admission to the training institutions.
7. The convener of the National committee for Work Experience programme is to be included in the planning process by the Planning

Commission

National Exhibition and Spot Competition under Work Experience Programme

The Work experience programme was introduced in most of the states in the year 1969. But various states have introduced the programme in different ways. For purposes of uniformity national Work Experience exhibition and spot competition of students are to be introduced by the N.C.E.R.T. One student for one subject from each state is to be allowed to take part in the national spot competition and exhibition under Work Experience programme. The sale of marketable products are to be allowed in the exhibition. For the first such occasion the following subjects are to be selected for spot competition:

1. Budding, grafting, layering (under agriculture)
2. Book-binding
3. Carboard work
4. Electrical gadget
5. Garment making
6. Food preservation
7. Paper craft
8. Teaching aids
9. Mat making
10. Knitting
11. Wood work
12. Metal work

In the case of exhibition all products produced by students at the state level competition are to be allowed for national exhibition.

Evaluation of the spot competition and exhibitions should be conducted by a batch of three qualified hands for each subject.

It will be more helpful if a seminar is conducted for the participants at the time of exhibitions.

Maximum four days are to be spent for this programme.

Merit certificates and scholarship for higher education may be awarded to the 1st prize winners of spot competition of each subject under Work Experience programme.

•

PART : IV

Institutional Success Stories

•

In addition to governmental efforts and efforts of other state level agencies there are many individual institutions or voluntary organizations which on their own have taken up the challenge and done commendable job in developing a work culture among the students, teachers and the local community. Following are reports of some such modest attempts which amply suggest that even within the existing constraints much can be accomplished if the head of the institution is willing, far-sighted and dynamic. He can change the ethos of the institution by providing a working leadership to the students and teachers thereby making the school a living example for others to follow.

Work Experience as Practised in Demonstration School (Regional College of Education, Ajmer)

SHRI V C KIMOTHI
AGRICULTURE TEACHER,
DEMONSTRATION SCHOOL,
REGIONAL COLLEGE OF EDN ,
AJMER (RAJ)

Introduction

The four Regional colleges of Education were set up by the National Council of Educational Research and Training, New Delhi at Ajmer, Bhopal, Bhubaneswar and Mysore. Each college has one Demonstration School attached to it. These schools were started as multipurpose schools to fulfil the objectives of the multipurpose scheme of education. The objectives and functions of these schools were as under:

- i) to serve as laboratory where prospective teachers may observe, learn and participate in teaching.
- ii) to serve as a centre for research and curriculum development in multipurpose education.
- iii) to serve as a laboratory for the identification, analysis, and research of major problems in teacher education.

Work Experience

Prior to the inception of Work Experience philosophy, craft education was being imparted from VI to XI standard. Students had freedom to opt for any craft of their own choice. The DM school had and still has got facilities to impart instructions in following areas of craft/WE:

- | | |
|----------------|--|
| 1. Agriculture | i) Vegetable and fruit production
ii) Vegetable and fruit preservation. |
| 2. Technology | i) Woodwork
ii) Hot metal work
iii) Cold metal work
iv) Radio/Electricity |
| 3. Commerce | i) Type-writing—English
ii) Type-writing—Hindi |

4. Home Science
5. Music
6. Fine Arts

First Two Years (VI & VII Standards)

Students were allowed to select any craft at the time of joining the 6th standard. The school counsellor used to help the child in selecting his area of interest. The child had to continue in the same craft for 2 years i.e. up to the end of 7th standard.

Exploratory Experiences (VIII Standard)

In order to help students to make a wise choice of streams to pursue in IX and finally to make the appropriate choice of college preparatory or employment preparatory options in the streams of agriculture, commerce, and technology, special exploratory experience programmes in agriculture, commerce, fine arts, home science & Industrial crafts were provided in VIII standard. The students had a choice to select any three courses. Each course was of 12 weeks' duration at a stretch. The course content (theory and practical) was duly spelt for every week.

At Higher Secondary Level (Classes IX -XI)

The departmental programmes had been planned so as to make appropriate craft activities important parts of the regular courses of study. Considerable emphasis had been placed on laboratory work which was closely related to classroom theory and discussion. The craft areas to be opted by the students were so suggested that helped their stream. Students of science stream were encouraged to opt for crafts like woodwork, metal work or electricity which might help them to improvise their scientific experiments. Students of humanities were expected to go for typewriting, drawing and painting, modelling, sculpturing, dance or music. The students of agriculture, technology and commerce streams were expected not to offer Craft subjects within their respective department.

Present Situation

Since the introduction of 10+2 pattern, Work Experience is being run in the DM school with the changing philosophy from time to time. The academic streams of technology, agriculture, and home science are no more in existence. However, the departmental facilities and academic staff still exist. Presently, following Work Experience areas are being offered to the students:

<i>S. No</i>	<i>Work Experience Area</i>	<i>Available staff (Nos.)</i>
1.	Gardening(Agriculture)	2
2.	Woodwork	2*
3.	Hot Metal	2

4.	Cold Metal	2
5.	Radio/electricity	1
6.	Music dance, instrumental & vocal-music	2
7.	Home Science	2*
8.	Engineering drawing-only for +2 students	1
9.	Computer IX class onward	2
* (Including Laboratory Asstt.)		

The typewriting as W.E. is not being offered as the faculty of Commerce consists of 4 academic staff members who are engaged in teaching of commerce streams of academic and employment preparatory.

Students Learning Projects

The DM school runs various learning projects. Joining these learning projects is purely voluntary for the students. But students get benefited when they join the Learning Project/Club of their respective W.E. area. For example the students of Agriculture should join "Future Farmers of India" and students of Home Science should join "Mini Cafe". The school runs following learning projects:

- Student's Book Store
- Students' Bank Under Deptt. of Commerce
- Mini Farm
- Mini Forest Under Deptt. of Agriculture
- School gardens (Parks)
- Home Projects in Agriculture
- Individual Plot work (IPW) at school.
- Mini Cafe—Under Deptt. of Home Science

Club Activities

Students of the school may join different clubs depending upon their personal interest and area of W.E. The club meetings take place once a month. Group discussions, collective work-projects and extension lectures are arranged during club meets. Following are the various clubs running in the DM school, Ajmer

1. Agriculture club (FFI popularly known as Future farmers of India)
2. Technology club
3. Home Science club
4. Social Service Club
5. Music club
6. Literary clubs
7. Games & sports club
8. Commerce club
9. Science club

10. Hiking and expedition club
11. Dramatists club

These clubs are exclusively W.E based. The student members of these clubs are basically responsible (and always appreciated) for undertaking developmental and on-going projects

Various Activities of W.E.

(i) Development of School Gardens

- (a) Pot culture
- (b) Flori-culture
- (c) Annual plantation
- (d) Raising nurseries
- (e) Upkeep of garden plants
- (f) Sale of seedlings & Potted plants

(ii) Maintenance and fabrication of school furniture

The DM School, Ajmer has not done any furniture items during last 20 years. The departments of wood-work, cold-metal and Hot-metal take care in this regard. Following various activities are undertaken:

- (a) Painting work;
- (b) Polishing;
- (c) Minor repair work;
- (d) Fabrication of new furniture items

(ii) Minicafe

This project is under Home Science department. This project works on all working days:

The department of Home Science prepares some solid hot stuff and vegetable curries. These items are available during interval period on nominal cost. This serves as support to mid-day meal for those students who are unable to come with their full tiffin.

Service and Maintenance Work

There is no specific department for this purpose. The headmaster of the school, with the help of W.E. teachers and Incharges of the clubs, and subject departments, forms committees to attend to different kinds of services and maintenance work which otherwise remain uncared for due to slow working of CPWD and other bureaucratic hurdles. The main working force is students' involvement. Following activities are some of the examples:

- i) Replacing glass window panes
- ii) Cleaning of school buildings

- iii) Cleaning of open drainage system
- iv) Preparing seasonal flower beds (specially when casual labourers are not available)
- v). Shifting of dump material to other places.

Some Suggestions

As per the directive of the CBSE, the teaching/practical periods per class from IX to XII standards have been reduced to 2 periods/week. In 1964 there were 9 periods/week, from 1970 onward there were 6 periods/week and after 1976 the periods allotted for SUPW/WE were 4 per/week and since 1988-89 the present allotment of 2 periods/week is in practice for higher secondary classes and 4 periods for junior classes (i.e. VI to VIII). Thus, WE is being run as an ornamental-educational requirement as there cannot be much justification due to paucity of time. Sufficient periods are required to be allotted for WE.

Most of the teachers are not very much acquainted and well-versed with measurement and evaluation practices to be followed in W.E. with special reference to their specific areas.

There is extreme shortage of funds. It is suggested that at least Rs. 60/- per student/session should be sanctioned in order to purchase raw-material. There should be proper accountability in this regard. The profit earned should build up a reserve fund which may be used as revolving fund of the department and this fund should be at the disposal of the W.E. teacher.

WE teachers should be deputed for orientation programmes/academic/professional training for their upliftment.

The teachers in WE with post-graduation should be given higher grades and incentives.

Work Experience in Matriculation Schools

Mrs. PREMALATHA PANNERSELVAM,
M A MEd,
PRINCIPAL & SECRETARY
MAHATMA MONTESSORI MATRICULATION
HIGHER SECONDARY SCHOOL,
GOPALAKRISHNAN GROUNDS,
MADURAI-625 020
TAMILNADU

Historical Background

Tamil Nadu is a land of exquisite arts and crafts. The sculptures of

Mahabalipuram the paintings and art work of Tanjore, temple carvings of Madurai, all these vocations practised by respective community had been traditionally passed over generation to generation. Now, we find the eclipse of these great arts due to the present system of education which made the heirs of the great artists to forget their community vocations. Now, we have taken up the task to revive the dying arts and crafts.

Linking education to productivity is one of the major tasks of all the educationists. The great philosopher and statesman Rajaji, the first Governor General of India and the former Chief Minister of Tamil Nadu ventured into this area by introducing communal vocation where the importance of communal vocation linked education was stressed. But he did not succeed; rather that resulted in the political uproot of that great statesman.

The Objects of Work Experience

The link between education and productivity could be forged only by introducing Work Experience as an integral part of general education.

Work Experience aims at

- developing respect for manual work and regard for manual workers,
- inculcating socially desirable values such as self-reliance, helpfulness, co-operativeness, team work, perseverance, tolerance, etc.,
- developing self-esteem through achievements in productive work and service
- developing a deeper concern for the environment and a sense of belonging, responsibility and commitment to the society.

Status of Work Experience in Matriculation Schools

Matriculation schools are better placed than the other schools on their financial status and in the freedom they enjoy in curriculum planning. Still the Work Experience programme which is so relevant for today's education, stands absolutely neglected. We do not find any effort being made on this much needed front. The reason for this situation is that most of the school managements are not aware of the concept of Work Experience. All they could do in the area of Work Experience was to offer vocational courses without any specific aim. They ultimately faced rejection from the students as well as from the parents as that vocational education prepared them neither for college nor for life. Another reason for non-acceptance of the programme is their wrong conviction that Work Experience is something extra curricular and would add more load to the already over-taxed children. The usual reasons put forth are: --

1. There is no more time to accommodate a new activity in the time table which is already spilling over with too many subjects.
2. The teachers find time just right to 'cover the portions for they have so much to cover in so little time'.

In these circumstances linking productivity with education by introducing Work Experience activities in a conventional education system will be just asking for the moon.

The Various Activities and the Schedule

Right from the inception of this School, we have been aware of this concept and have been trying to introduce various activities of Work Experience starting from the primary level. More than any other reason, in our experience what we have found out is that in this type of education, it is possible to identify the interest and talent of the individual child which is absolutely impossible in the conventional education system. What we are assuming for a student who is spending twelve precious years in our school campus, is that he should come out as a useful resource person who is self-reliant and a committed citizen to the society. I remember a famous saying of our National Poet Tagore "We pass our B.A. and M.A. examinations with loads of learning, but the intellect gains neither Vigour nor MATURITY. And so the domestic feud between LEARNING AND LIFE goes on growing, each bitterly and incessantly mocking at the other"

Activities at Different Levels

- (i). Learning with the shapes, patterns and colours by making or observing with different collections of leaves, vegetables, fruits etc ,
- (ii). With vegetables: health lessons, washing, peeling, cutting. Simple recipes with fresh vegetables, vegetable painting and carving.
- (iii). Kitchen gardening activities: watering, measuring and observing the various growth stages, differentiating the non-living things-reporting their observation.
- (iv). Visiting work places and observing the working of a post office, bank, fire station, railway station, aerodromes, hospitals, markets, shopping complexes etc.,
- (v). Camping: raising tents, creating hygienic environment around, trekking, group activities, organising community service programmes, tree planting.
- (vi). Agriculture: orientation towards farming, exposure to the workmanship, farming, cultivation, preparing plants through vegetative propagation—cutting, budding, grafting etc.,
- (vii). Publishing class magazines: self expressional activities, writing poems and essays, editing, procuring materials for magazines.
- (viii). Club Activities: fine arts, literary, quiz, science, maths and environment club exclusively for exposing their latent talents, organising the programmes.
- (ix). Seminar/Workshop/Debates: translating the subject topics into activities avoiding the monotony of lecturing.
- (x). Computers
- (xi). Field trips

Time Schedule in Mahatma

Every week we work for five days, each day is divided into nine sessions of 40 minutes each, we have 45 sessions at our disposal, in which the core subjects will consume 35 sessions, the remaining 15 sessions could be allotted for various activities:

a)	Co-curricular activities, Music	— 3 sessions
b)	Arts and crafts, embroidery dress designing	—4 sessions
c)	Computers	—2 sessions
d)	Physical education	—1
e)	Meditation/Bhajan	—1
f)	Club activities	—Every Saturday 2 sessions
g)	Field trips	—Every term 2 trips
h)	Camping	—Every Sunday

Suggestions for more effective orientation and implementation of Work Experience:

NCERT should set up regional information and resource centres through which all the know-hows generated there could be disseminated to all the schools across the country.

We ourselves could grasp the concepts of this essential experience only after the seminar we organised for the matriculation school teachers at Madurai. We are sure that the message was carried over to many schools through the 320 delegates who participated in the Seminar.

The proposed Centre should be administered by a private independent educational institution for efficient and effective working. The Centre should be equipped with all the necessary models and tools with which a full-fledged training programme could be organised to benefit the teachers.

With this Resource and Training Centre in every region, it would be definitely possible to successfully orient the schools about Work Experience.

Translating the methodology of teaching from that of lecturing to experiencing would demand more time than what is available with us now. The Matriculation Board should consider this matter and allow the schools either to reduce the syllabus load or to take up a less rigid framework to operate within.

Work Experience/Community Service Programme in Springdales Schools New Delhi

RAJNI KUMAR (MRS.)
CHAIRMAN
PATEL EDUCATION SOCIETY
FORMER PRINCIPAL,
Springdales School

BACKGROUND INFORMATION

Springdales is a large senior secondary co-educational school with an enrolment of about 2,000 students from Nursery to Std. XII. It is situated in the heart of the city, has a spacious building and is well equipped with subject rooms, laboratories, art and craft rooms and libraries.

History of the Programme

Although an emphasis on craft education and community service at the school has been there since its inception, Work Experience as such was made an integral part of the curriculum after the implementation of the 10+2 system in 1975 in accordance with the guidelines laid down by the NCERT and the CBSE. At that time Work Experience was geared to production-oriented activities and training students in vocational skills to produce saleable goods useful to school and community, and to provide a base for future vocational skill training.

In 1977 the Ishwar Bhai Patel Committee added a new dimension to the programme, renamed it SUPW, gave it a central focus in 'Education through Work' and defined it as "purposive meaningful manual work resulting in production of goods or services useful to the community".

This new orientation of the programme linking education not only with productivity, but also to the community and its needs and introducing a new philosophy and approach, appealed to us and we remodelled our programmes accordingly. Today we can say with confidence that our Work Experience/Community Service has a place of pride in our curriculum; it has considerably increased the "skill training" component of education; and has awakened a social consciousness in our students, helping them to interact with the community around them and develop a broad outlook on life. The reason for its success has been:

- (a) A belief in and commitment to the programme and involvement of the school as a whole in its implementation.
- (b) Provision of required resources, human, material, and financial.

- (c) Proper planning, organisation and management of resources.

Preliminary Steps taken before introducing the SUPW Scheme

Before embarking on the programme, the following steps are taken each year:-

- (1) Orientation programmes for both teachers and students through lectures, film shows, visits to institutions and rural and slum projects to create an appropriate climate and develop social consciousness.
- (2) Conducting a survey to identify the needs and resources both in the school and in the community.
- (3) Setting up of a committee with co-ordinators for planning and executing (a) production-oriented activities, (b) community service activities.

An Outline of the Programme

It covers the following areas and groups of students:

A total school community service project: This is undertaken at an appropriate time during the year, selected by the committee for implementation. It is taken from out of the following:

- (a) A blood-donation drive every year;
- (b) Adoption of a local charity hospital;
- (c) A peace walk for a community project (e.g. Lepers' Home),
- (d) A tree-planting campaign;
- (e) An area sanitation week

This year being International Literacy Year, the school has organised

- (a) Literacy Mela for the local community in collaboration with five local schools;
- (b) A social evening to raise funds for a shelter for literacy classes in the community.

School Literacy Project

In view of the magnitude of the problem of illiteracy facing the country, the school has taken on the Literacy Programme as its main school project. There are three on-going programmes:-

One-to-one teaching: Students from Stds. VI-XII are engaged in a one-to-one teaching programme where they identify their own learner in their home or vicinity and teach the illiterate through a Literacy Kit provided by the State Resource Centre. The training programmes and the monitoring of the programme, the contact programmes with the learners and the conducting of the final evaluation tests are supervised and monitored by the school social workers. One hundred and fortyfour

students are engaged in this project. To date 64 have been made literate and 80 are in the process of learning.

Literacy work in the community. Students of Stds. XI and XII are engaged in non-formal teaching in the community—for four days per week (each student going for two days) Thirtyone learners have been made literate and 35 are in the process of learning.

Literacy and vocational training courses in the school premises: This class has just started and 15 women have enrolled for literacy and tailoring. This programme is being supported by the Rotary Club.

Preparation of posters, slogans, literacy skits and songs. These are done by other groups of students for motivation and awareness campaigns.

Literacy marches and literacy fairs. Large number of students have participated in Literacy Marches and in the organisation of a Literacy Mela in the school campus to generate awareness and enthusiasm among the learners to join the literacy classes; as well as to arouse enthusiasm among the student volunteers to enrol themselves for the campaign.

Service-Oriented Activities within the school campus itself

As the school is the first community, all students are involved in the continuing programme of work conducted on a daily rota basis:

- (a) Working at the reception office, receiving visitors, escorting them, giving them relevant information about the school

—Students of Stds IX & X

- (b) School duties in the office, i.e. ringing bell, taking messages, filing

—Students of Std VIII

- (c) Working in the library, dusting the shelves, helping in cataloguing, shelving and managing the library during breaks and in the absence of the Librarian.

Students of StdS. VIII

- (d) Tending the garden, planting trees, watering plants, weeding and mowing the grass

Students of Stds VII & VI

- (e) Helping in the cleanliness and beautifying of the school, dusting, sweeping, polishing

Students of all classes

- (f) Helping to serve lunch to the children and mid-day snacks to their juniors

Students of Std. VII

- (g) Helping the school doctor and nurse in taking the height, weight, etc.

Students of Std. VI

- (h) Running of a co-operative store for selling SUPW products

Students of Stds. XI & XII

Method of Operation: Students are assigned to the foregoing duties on a daily rota basis, two students from each class for each activity, according to the serial number in the class attendance registers. One teacher is deputed for the supervision of a particular duty to ensure (a) that the rota works smoothly; (b) that the duties are carried out properly; and (c) that the tools, if any, are supplied and stored in a proper fashion, so that they are easily accessible every day for the students on duty. The children work under the supervision of the following personnel:-

- | | |
|--|--|
| (a) Reception and school office duties | —Office in-charge |
| (b) Library work | —Librarian |
| (c) Lunch duties | —Teacher in-charge or
Canteen Manager. |
| (d) Gardening | —School gardener and
Estate Manager |
| (e) Cleanliness | —School nurse or
person in-charge of
cleanliness |
| (f) Medical room | —Doctor, nurse or
compounder |

With two students placed on each duty daily on a rota basis, each student's turn comes not more than two days in the academic year, which means that they miss their academic studies for this part of Work Experience for a maximum of two days per year, i.e. 12 hours.

Cleanliness Programme

For this activity, all students of the school participate on a daily rota basis for 20 minutes at the end of the day, sweeping, mopping, dusting, settling the furniture, cleaning the blackboards and window-panes. The class teachers organise this programme by allocating different cleaning duties to different students occupying approximately 6-8 students on these duties each day. The remaining students, not on the cleaning duty on that particular day, proceed to the bus-assembly or grounds for end-of-day dispersal.

Chattarpur Farm Project

The school has an eight acre Farm at Chattarpur, 20 kms from the school, where the children go on weekends on a class basis and daily during harvesting time. They spend the night at the Farm, do their own cooking, work on the land, make a survey of the Farm, neighbouring farms and the villages around, and work in the literacy centre in the neighbouring village of Chandanhula. About 30 students go each weekend accompanied by their teachers. This teaches them the dignity of manual labour, exposes them to rural life and community living, and helps them to interact with their rural brethren.

Specific Work Experience programme for Classes VI-VIII

At this stage the students are exposed as scheduled in the school time table to a wide variety of skill-oriented activities. There is adequate choice so that they can work with tools and materials which appeal to them in order to produce something of social value, of utility and of beauty for their families, for their school, or for the community. There is individual as well as group work. In a period of three years they cover 3-6 activities relating to food, health, sanitation, clothing, recreation and community service. The nature of the activities varies from year to year according to the teachers available and the skills they can impart.

Types of activities VI -VIII: About 16-18 different activities are arranged each year, some of them are duplicated. For example, the following SUPW programmes have been introduced which are production-oriented and are useful for the school community:-

1. Book-binding
2. Candle-making
3. Making soaps and detergents
4. Meal Planning and Food preservation
5. Tailoring
6. Toy-making
7. Bead-work
8. Macrame
9. Gardening
10. Doll-making
11. Batik
12. Repair of electric gadgets
13. Rug-making
14. Library Science
15. Ceramics
16. Photography
17. Commercial Art
18. Needlework and Embroidery
19. Preparation of educational aids

Specific Work Experience Activities for Stds. IX & X

The Work Experience activities at this stage are largely production-oriented. The quality of the products produced are naturally more sophisticated than the products produced at the middle stage. To gain proficiency in the skills and to ensure the quality of the finished product, students spend two years working in their chosen field. The list of activities offered is as follows.-

1. Macrame
2. Library Guide Service

3. Electronics
4. Preparation of educational aids
5. Tailoring
6. Batik
7. Meal Planning and Nutrition
8. Commercial Art
9. Photography
10. Ceramics

The Social Orientation of Work Experience Activities

The Work Experience programmes have a social purpose. Each teacher has to think how this could be done. For example, the group which makes detergents, washes and irons the towels in the staff and students' bathrooms, takes great pride in preparing the clean laundry and changing it each Monday.

The Meal Planning group takes over all the arrangements for refreshments at every function or meeting.

The tailoring group sews new Nursery bags for the first entry class, curtains for staff rooms, screens for medical room and costumes for the school folk-dancing group.

The Batik group makes beautiful murals for beautifying the school. These can be seen in the staff room, along the corridors and in the libraries.

Other groups, such as Ceramics, Macrame, Toy-making, Food Preservation, etc. produce goods to be sold at the school fete which is held to raise money for various projects.

Service Oriented Activities for Stds. XI & XII

The Work Experience programmes for Stds. XI and XII are largely service-oriented. About 12 projects are organised each year in which 500 students participate, many of them working with various agencies in the open community, and others supporting these activities by work within the school campus.

Selection of Projects: The selection of projects is based on a survey of the needs of the school and the resources and needs of the community. For example, a survey taken in our area revealed the following:-

1. Three local hospitals were anxious and ready to receive student help.
2. Two institutes for the blind also ready for student-helpers.
3. A chaotic traffic situation and an inadequate number of traffic policemen.
4. A slum area, a basti and urban village with a number of school dropouts between 9-16 years, and illiterate women between 16-35 years.
5. Two poorly equipped Primary Municipal schools.

In the light of these needs, the programme was worked out as follows:-

1. *Blind Welfare* Students go to two blind schools— Panchukuin Road (boys) and Rajinder Nagar(girls) where they read and write for the blind, translate to braille, organise various social integration programmes, like quiz competitions, sports day, health camps, eye camps, cultural programmes, educational trips, vocational guidance, etc.
2. *Non-Formal Education:* Here also students go every day to a slum just outside the school - Ashok basu. Here they are working on a literacy programme for the non-school going children, remedial classes for the school going children, and run a craft-cum-literacy centre for the women. They make the syllabus and teach with the help of aids. Apart from this, they organise various social integration programmes like cultural programmes, sports day, educational trips, film shows. They have even taken up health, hygiene and sanitation aspects.
3. *Todapur Farm Project:* Students work in Todarpur village, a literacy programme for school going and non-school going children, a craft-cum-literacy centre for women, self-employment scheme for women, where students help in the marketing also. They also work on the farms and get technology to the farmers for their farms and dairy. Apart from these are the social integration programmes—sports day, educational trips, health camps, vocational guidance to the youth, etc.
4. *Hospital Service.* Students are working in nearly all the wards and OPD's of the Ram Manohar Lohia, Sucheta Kriplani and Kalawati Saran Children's Hospitals. They also help in all the functions of the hospital. They do practically everything from registration to dressing a wound, weighing a baby, taking temperature and pulse, running a library, sharing the problems of the patients, conducting educational, recreational, health and hygiene and social awareness programmes.
5. *Teachers' Aide.* Students serve the school community by helping in the Nursery, Prep and First classes with the various activities, helping to give individual attention to the children and carrying out new methods of teaching. They also observe the children and give extra help to those who need it, in both academics and behaviour and adjustment problems.
6. *Theatre Craft:* These students make puppets and prepare plays on various social issues and problems and entertaining themes. They then perform in the hospital, blind schools, slums, MCD schools and in our own school to raise funds. Last year they prepared and staged plays on literacy.

- 7 *Educational Aids*. The students make aids for the other projects like hospital, non-formal education, blind welfare, MCD remedial, etc as per the needs and requirements.
- 8 *School Service*. This has two projects under it
 - (a) *Teachers Centre* - They work with the teacher in-charge on various projects being done by the centre.
 - (b) *Remedial Teaching*. The senior students teach the academically weak juniors of the school.
9. *School Maintenance*: They help in maintaining the school building and premises. They ensure that the windows are clean, all repair work is done, painting is done, display boards are clean and maintained, see to the general maintenance of the buildings and lawns and have a trophy for the best class.

Time Tabling

For classes VI-VIII three consecutive periods are allotted for these activities each week. Two sections work at the same time with about 20 students in each activity, giving a choice of activities to each student.

In Classes IX & X two double periods, that is four periods, are allotted in the time table each week for Work Experience. Again, two sections work at the same time giving the students four activities to choose from. The same practice is followed in Classes XI & XII.

Although the CBSE has reduced the Work Experience periods from four to two in the time table, our school has continued to give four periods as, from our experience, two periods allocated in the time table are totally inadequate, either to produce goods of saleable quality, or to provide continuity in the community service projects and to foster needed interaction. The extra two periods have been taken from the elective subjects, giving each elective seven periods a week instead of eight. We find that with this the quality of our academic work has not deteriorated.

In addition to the time spent by each student within the time table, students spend 12 hours on school community service on a rota basis, 24 hours in the Chattarpur farm project, 6 hours on the cleanliness programme and 24 hours on school welfare projects, making a total of an extra 66 hours per year.

Personnel

The school has a regular Social Work Department with two full time social workers who plan and co-ordinate the community service schemes, and a teacher who co-ordinates the other SUPW programmes. Nearly all teachers are involved in some way or the other with community service/SUPW programmes. Some staff are engaged specifically for SUPW and are all specialists in their subjects. Others

who have had a training in a particular field, like fruit preservation, tailoring, etc., are given these periods along with their academic subjects. Each teacher has the two double periods on her regular time table and they are counted along with the other teaching periods. The success of all the activities depends to a large extent on the enthusiasm of the teachers. We try to involve as many of the regular teachers as possible and draw upon their talents and skills, e.g. the Head of the Maths Dept. took up needlework and embroidery, the Librarian takes up gardening, the Hindi teachers take up tailoring, and so on. Altogether, we have 30 teachers involved in the programme, a few of them full-time specialists and 3 social workers. We reduce the teaching periods accordingly if they take up SUPW programmes.

Materials

In activities where children are learning to make articles, e.g. toy-making, they bring their materials and take home what they make, but when articles are made for the school, materials are supplied by us. For activities like batik, painting, electrical gadgets and Meal-planning, materials are provided by the school and the accounts are kept by the teachers concerned.

Finances

We have a Community Service Fund which is built up by sale of our produce and cultural programmes put up by the community service group, and a 'kabari' drive. This is used for the aids and materials we require.

An amount of Rs 5/- per month from the fees of students from Std IX-XI is allocated to Work Experience to cover transport charges and costs of equipment and incidental expenses. The school has already the infrastructure of laboratories, workshops, basic equipment and personnel.

Plan of Work

Plan for work for each activity is framed by each teacher in-charge of the project, with the help of Heads of Departments and other specialists in the school. An annual work plan is made and broken up into weekly/monthly units as per need. Whereas the field work activities, as well as some of the productive activities can be planned out for the full time of two years, others, mostly the supportive activities, are completed in one year or even six months. Once the students have completed their project and learnt the necessary skills, their work is taken over by the next group of students and they change their activity, e.g. running the co-operative store, preparing exhibition material, etc.

Record Keeping

For the SUPW programme students maintain their project files and the teachers in charge keep a record of each student's work. In community service, students keep their own project files where they write all they have done weekly and their

personal reactions. This is signed by the teacher weekly and her comments are also recorded.

Evaluation Procedures

Unlike other subjects, Work Experience is evaluated by the Board on a nine-point grading scale. Many schools have found that since this is evaluated differently from other subjects, it detracts from the importance of the subjects. This has not been the experience at Springdales, for the following reasons:

1. A grading system is already in operation upto Class VIII.
2. The school gives a high rating to performance in this area and students who do not achieve, are held back from appearing in the final examination until they complete the required minimum.
3. In Classes IX-XII the Work Experience is evaluated in terms of marks as for other subjects, and is included in the aggregate and then converted to grades as per the Board requirement, to be included in the final certificate.

Students are evaluated three times a year, that is, at the end of each term. Students also exhibit their work and a team of teachers, including the Principal, co-ordinator of SUPW and social workers, give a general evaluation. Each project is also evaluated so that we can judge which ones are proceeding well and which ones need improvement. As Work Experience covers both production-oriented activities and service-oriented activities, evaluation becomes more complex. One has to take into consideration a number of factors

- (a) The effort put in by the student, his interest, initiative and resourcefulness in overcoming problems.
- (b) His regularity and punctuality.
- (c) The quality of his finished product in production-oriented activities.
- (d) The relationship the student forms with the beneficiaries in the service activities and the changes brought up in the life of the beneficiary or the community by the programme.
- (e) The change in values, attitudes and feelings of students and the effect of the work on the general growth of his personality.

On this basis, marks are allotted to the students under the following heads:-

Punctuality	10%
Attitude/Interest	20%
Project report	10%
End product and achievement	60%

This is the kind of programme we have devised in Springdales. The programme is evolving year by year but, of course, there is always room for improvement and we keep learning from our own experience and the experience of other

institutions. Some students get tremendously involved in their work and show very positive changes in values and attitudes and all get the exposure and a new meaningful experience—and it is this that makes the whole programme worthwhile

Conditions for Successful Implementation of Work Experience Programme—Some Suggestions

In spite of the importance given to Work Experience by the Kothari Education Commission in 1964 and later by the Ishwar Bhai Patel Review Committee in 1977, the "Challenge of Education" document published by the Ministry of Education in 1985 was constrained to comment that Work Experience had failed to make any real impact in schools throughout the country. Realising however its increased educational value as a corrective to the academic and examination-oriented system of education still prevalent in our country, it was included in the New Education Policy as an integral part of the National Core Curriculum for all students and for all schools.

Yet, five years later, the implementation of the scheme still leaves much to be desired and like many other innovative educational programmes, it is having a very chequered existence. It was to have provided a pre-vocational base for a much needed thrust towards vocationalisation of secondary education, a central focus on "Education through Work", and a new value orientation of students towards work, towards people, towards life itself

But without faith in the basic concepts of the programme and the will to implement it in the manner it was conceived by all those involved, from educational planners and administrators to Principals, teachers and students, it obviously cannot succeed.

To illustrate the point, in the new scheme of studies prepared by the Central Board of Secondary Education, instead of lightening the academic load of senior students and giving them time to concentrate and work on this very important area of education, more academic courses have been added, (such as Economics in Std. IX and Art Education and the 3rd language in Stds. IX & X). The new syllabi for Std. XI & XII are heavier than ever and textbooks are still voluminous and information-loaded.

The time allotted to Work Experience has been reduced from four periods per week to only two, out of a total of 45 periods, i.e. just over 4% of time allotment instead of the 10-15% recommended by the Ishwar Bhai Patel Review Committee in 1977. When academic subjects are given an allotment of 8 periods each week, it is obvious that Work Experience with two periods per week will be considered as a low priority area by both teacher and taught. The reduction in time means a dilution of existing programmes, and based on experience, I can say categorically that with only two periods per week, neither can goods be produced of quality or saleable value, nor can anything worth while be achieved in the community service projects. The Board suggests that two extra periods be devoted to Work Experience outside school hours. Can "periods" be allotted outside the school

hours? Children take part in after school games, or in co-curricular activities. Similarly, certain community service projects can and should be organised outside school hours *But this can be no substitution for a proper allocation of time for Work Experience in the school time table itself The time allotted must be enhanced and the academic load reduced.*

Attitudes are hard to change and if we want to see a new orientation in the education imparted to students, with a swing away from the present careerist and academic approach, and towards both vocationalisation and value education, if we want to help our students become more skill-trained, socially conscious and humanistic, then many more conferences, workshops and seminars on this subject need to be organised for educational administrators, parents, principals, teachers and students so that they fully understand and appreciate the importance of productive work, the dignity of labour and community service as a vital part of education. A climate for implementation needs to be established. The mass media should also be mobilised to support efforts in this direction.

Commitment apart, what other conditions need to be fulfilled for the successful implementation of the programme? *Certainly proper planning and organisation are essential for success.*

An attractive feature of the programme is the fact that it is locale-based, requires a lot of school and community interaction and that a fair degree of flexibility is inbuilt into it.

So, although the NCERT at the Centre, the SCERT in the States and the Boards of Education will be giving the necessary guidelines, and assisting with materials and kits, orientation and training of teachers, as well as supervising and monitoring programmes, a lot of responsibility falls on the schools themselves to use their ingenuity, their resourcefulness and sources at their disposal, to plan, organise and implement the programme

The following are a few ideas based on experience which could be put to use by schools not yet involved in the programme:-

(i) *Importance of Survey*

Before embarking on any Work Experience programme, the schools should first make a survey to find out:

- (a) What resources the school already has among its teachers and non-teaching staff in terms of skills needed for production-oriented projects or for community service.
- (b) What kind of Work Experience activities can take place within the school campus itself and what are the skills and resources required for them
- (c) What are the developmental needs of the area. This survey can be carried out by the senior students under the supervision of their teachers.

- (d) What resources are available in the community; what social agencies are already operating and with which the school can interact.

This year being the International Year of Literacy, the survey can be connected with gathering data on the illiterates in the communities around the school for student involvement in the eradication of illiteracy

(ii) *Planning Activities*

Having identified the needs and resources available both within the school and in the community, the school would then be in a position to decide the nature of the SUPW programme it would be able to take up. A small school, for example, may like to take up only development work and work on a particular community project outside the school under a developmental agency; or take up one production-oriented work involving a number of skills and make it a full-school project, e.g. production of home made paper and paper production. Large schools, however, with heavy enrolments, would need to introduce a variety of SUPW activities, some involving production skills and others relating to community service, both within the school campus and in the community. The programme will vary from area to area, from school to school.

(iii) *Formation of SUPW Committee*

A committee should be set up in each school for the planning and supervision of Work Experience in view of its innovative nature, under the Chairmanship of the Principal. Apart from the teachers who are directly responsible for the SUPW projects, there should also be a co-ordinator selected from the senior staff members, who will be responsible for the co-ordination and smooth functioning of the whole project. Useful people from the community engaged in developmental projects, from factories, or social welfare agencies, with whom the school would be interacting, could also be asked to serve on the committee.

(iv) *The Importance of Planning*

What is important in planning is to see that no activity is started unless there is a teacher with the requisite skills and interest. In all innovative educational schemes it is the teacher who is the pivot, and who has to guide and supervise the students. Secondly, each activity must be well-planned to ensure that each student is engaged in useful productive activity throughout the year. Thirdly, there must be sufficient amount of raw materials and implements supplied if the students are engaged on productive work, and also adequate space. The skills imparted must be good enough to ensure, at the end of the course, that the goods produced are of a high enough quality to be of utility value to the family, the school or the community. The services rendered to the community must also be of standard and are as per their needs

(v) Problem-Solving Approach

In initiating students into Work Experience, the problem-solving approach should be adopted so that the students take interest and are involved even at the planning stage, to identify the needs and to apply their minds to the situation. In conducting a survey in the community they will begin to understand the realities of life, think about problems of the community and possible solutions.

(vi) Formation of Student Groups

It is important that the student feels motivated and enthusiastic about participating in the programme. It should not be thought a compulsory diversion from the academic work, but as a useful service to the community. The student should be encouraged to make his own decisions, to be resourceful, to work independently and not just to follow out the instructions in a mechanical way. Every effort should be made to ensure that the work assigned to the student is congenial and suited to his skills, his personality and aptitude. Some students may have good manual dexterity and would be well suited to production-oriented work, whereas others may have the temperament and qualities needed for community service. At the same time, it is necessary that all students at some time during their school years be exposed to some form of community involvement. Obviously, this year the emphasis should be on student mobilisation for eradication of the scourge of illiteracy from our country. Every senior student can be mobilised in the Mass Campaign for "one-to-one teaching", teaching at non-formal education centres in the community and on conducting surveys and preparation of literacy skits, songs, slogans, puppet plays and street theatre according to skills and interests; for motivation and awareness.

(vii) Time Tabling

Where a school is able to offer a number of Work Experience programmes, it would be as well to organise the time table in such a way that several programmes are scheduled at the same time; so that students of different classes can group together according to their interest and aptitude. For example, if four sections of 40 students each have their Work Experience at the same time, 160 students could be divided into 8 groups of 20 each, and a variety of programmes could be organised - hospital service, non-formal literacy group, road safety corps, meal-planning and nutrition group, Red Cross and first aid, electronics and repair of electric gadgets, farm production group, etc. In a small school where the students are working on one project, it would be necessary to stagger their SUPW so that the programme is a continuous one, each day a different batch carrying on the work.

Where students are engaged in community work, the last periods of the day are usually the best so that they are free to stay on longer in case the work demands it, without having to rush back for the next school period. However, community work cannot completely fit into the regular school time table, and it would be

necessary to include some weekends and holidays for the organisation of social service camps so that students can work for a longer stretch of time.

(viii) Resource Organisation

What are the resources needed for successful implementation of SUPW ?
Essentially

- (a) Skill-oriented teachers with the right attitudes and commitment
- (b) Tools and implements required for the various processes.
- (c) Accommodation and space to operate the projects
- (d) Finances

To set up sophisticated laboratories and workshops does mean a considerable amount of financial outlay and there may be some institutions lucky enough to afford them, but they should not be vital to the success or implementation of the programme. Such projects requiring minimum of financial outlay should be encouraged.

- (e) Resources available in the community in the form of personnel from the social and development agencies, the various institutions, small-scale industrial units and factories, etc.

Schools should get together as a "school complex" and share resources and teachers, if necessary. In each area industrial houses, or the state, could be asked to set up Zonal Workshops which could be utilised by a cluster of schools.

(ix) Disposal of Finished Products

In selecting their Work Experience activities, schools should ensure that

- (a) The skills being imparted are good enough to produce goods of marketable value, if not saleable in the open market, at least of value to the school itself.
- (b) That there is a demand for the particular goods being produced

Since there are no 'middle men's profits' and there is only the cost of the raw materials and the estimated cost of the student's labour to be calculated, the price of the finished article will be less than the market price. Therefore, provided the quality is of standard, there should be no difficulty in disposing off the goods within the school itself. Parents and teachers would be happy to buy jams, pickles, sauces, detergents, farm products, vegetables at less than market prices. Similarly, schools would be prepared to purchase file covers, chalks, ink, even furniture. Schools having printing presses could well take orders from neighbouring schools for stationery requirements or for book-binding. There can be interaction between the different schools in the area, each one producing a different commodity. Similarly, there can be a market to supply small items like labels, pasting material, files, etc. for the local community. Distribution and marketing can be an activity

for the commerce students.

(x) *Monitoring and Supervision*

The view has often been expressed that the Work Experience programme suffers from absence of an effective monitoring and supervisory system, essential for the success of any programme. No doubt this has been a weak area. The CBSE is now calling for an Action plan to be submitted by the Principal each year. Boards of Education also need to set up teams from local schools with some experts to make periodic visits to see the work in action, to share experiences and to snowball good features. At the time of school inspection, particular attention should be given to the Work Experience area of education. Questionnaires can also be administered from time to time.

(xi) *Evaluation*

Since this area is internally assessed and graded, a greater responsibility rests on schools for working out detailed evaluation criteria to suit the needs of both production-oriented and service-oriented activities. Since passing in Work Experience is a necessary requirement for passing the Board's examination, honest and sincere gradings by the schools for both school promotions and for the Board examination will convince the students of the seriousness of the programme.

(xii) *Rapport with Community*

For too long the school has lived in isolation from the community. The Work Experience programme gives schools an opportunity now of bridging the gaps and coming closer to the community, to learn from it, to imbibe from it, to serve it to the best of its capacity. It will have an opportunity to draw on the resources of the community and to enrich the learning experience of the students.

(xiii) *How is Success to be Measured?*

Success is measured not by grades awarded but by the quality of the end-product, i.e.,

- (a). (a) The quality of the goods produced.
- (b) Services rendered to the community
- (c). The impact on the development of students' personalities, the changes in attitudes towards life and work and their development as socially aware, humanistic young people.

Work Education in West Bengal: Status and Findings of Research

PROF. PIJUSH KANTI CHATTERJEE
PRINCIPAL,
BRAHMANANDA P G B T COLLEGE,
RAHARA, W B

Introduction

Work Experience has become an integral part of the 10+2+3 pattern of education in our country. Termed as 'Work Education' and 'S.U.P.W.' in some states, Work Experience includes meaningful productive manual work. It is forward-looking and is given under real productive situations. Manual work helps in producing socially useful articles. Work Education signifies direct involvement in problem-solving activities related to the basic needs of life, which result in conscious perception of reality in terms of knowledge, skill and attitude.

Mechanism for Implementation

According to the syllabus and norms framed by the Board of Secondary Education, Work Education has been implemented in all the schools of West Bengal, it being accepted as an examinable subject from the Secondary Examination, 1976. To be educationally meaningful and effective, the involvement in an activity must precede exposure to such an activity. Even in purely economic project, the concern of Work Education is not so much with developing the skill in a trade as with providing understanding and orientation of productive process in general. Every individual school develops a scheme of work for the entire session so that variety of experiences may be provided and all the students are involved in the programme.

Types of Activities Offered

In West Bengal the syllabus of Work Education has been revised from 1982 onwards. Long experience in conducting final examination in Work Education at the Secondary Examination has guided the Board authorities to make drastic changes not only in respect of items of work but also in its evaluation procedure and other details. The following items of work at the involvement (IX-X) Stage have been incorporated in the revised syllabus:

(1) Soap, Phenyl and Ink Making (2) Household wiring or repairing of transistors (3) Cultivation of rice & wheat (4) Cultivation of Jute (5) Growing

of vegetables & flowers (6) Growing of annual & biennial garden plants (7) Spinning & weaving (8) Designing, dyeing & weaving (9) Tailoring & needlework (10) Clay Modelling (11) Woodwork.

The revised syllabus has faced some determined queries regarding the practicability of introducing 'Clay Modelling'. High schools face a near-impossible task to find qualified teachers in Clay Modelling as only a small percentage of Art College students offer Clay Modelling as a subject in their 5-year course. It would have been wiser if a work-item like 'Artistic Handicrafts' were introduced instead. Wonderful and useful household art materials, colourfully designed and decorated, are ornaments in any home. Thousands of young people are now-a-days engaged in producing these art materials with bright economic prospect. Introduction of 'Artistic Handicrafts' in the syllabus could, on the one hand, open a vista of employment for the youth who pass out from Art Colleges, and on the other hand, could satisfy the educationists' recent cry for imparting "aesthetic education" to school children who have dangerously been exposed to environmental hazards and ugliness in its naked form all around. 'Cookery' and 'Book-binding' which have been removed from the revised syllabus in West Bengal should be reinstated because of their social and utilitarian values.

Involvement of Teachers

It was laid down in a West Bengal Govt. Order dated 8.7.1974 that all teachers should be involved in Work Education programmes and for such involvement two periods might be assigned to a teacher with corresponding adjustment in the total period of work per week. While the Work Education teacher would remain in full charge of the programme, other teachers might take part in environmental activities prescribed for Classes VI to VIII. Further, a teacher of Physical Science and a Teacher of Life Science with some orientation might take up 'House Wiring' or 'Soap & Phenyl making' and agriculture-based activities respectively. A teacher with a degree in Home Science might assist the Work Education teacher in 'Tailoring & Needlework'. In actual practice, however, this idea of involving other subject-teachers in Work Education did not materialise in most of the schools.

Students' Response

Psychologically, students want to do creative work, produce materials with their own hand. The present writer had a wonderful experience at his visit to St Alphonso's School, Kurseong in the Darjeeling district, in 1975. Under the inspiring leadership of the then Principal, Father Abraham, the students were involved in 'Poultry Farming'. They reared hundreds of hens and chickens in the school in a scientific way, recorded stock of eggs hatched everyday, cleaned the cages with tenderly care, supplied eggs to different hotels in the Darjeeling district by autovans, collected payments to be deposited at the school office. The school made huge profits every year out of this job-oriented scheme.

But in other schools, where no such profit-earning project was pursued, students

responded feebly to the programme of Work Education.

Institutional Infrastructure

Every one-unit high school has got one Work Education teacher in its payroll. He has to select a suitable work-project according to availability of raw materials, need of the individual or the school, his own capability and other factors. The D.I. of Schools has been authorised to sanction special monetary grants for meeting the expenses to be incurred for conducting work-projects in a school. But, in fact, this grant does not reach the hands of the Headmaster regularly. As such the programme suffers in most of the schools. The zeal and coordination are a matter of yester years. Most Headmasters show a cold shoulder to Work Education. Want of any workshop meant exclusively for Work Education in most of the schools puts serious obstacle to its smooth operation.

Curriculum and Instructional Material Development

In West Bengal the curriculum of the Work Education Group has undergone several changes since its implementation in the year 1974. For Work Education part, 50 marks are allotted - 20 for practical demonstration, 20 for Viva Voce and 10 for Work Diary. For Physical Education part, 50 marks are allotted - 30 for Physical Education, 12 for Social Service and 8 for School Performance. The Board of Secondary Education has recently contemplated to introduce "Literacy Drive" as a compulsory social service for all students of Classes IX and X from the academic session 1990-91.

Progress in the field of development of instructional materials in West Bengal has been too meagre. Two teachers' Guide Books - One on Work Education and the other on Physical Education were published by the Board about 15 years ago. Occasional guide lines on Evaluation Procedure are being released. Teacher Training Colleges where Work Education is taught depend mostly on NCERT publication on the subject.

Orientation and Training of Teachers

Teachers coming out of Post-Graduate Basic Training College at Rahara and Banipur and B.Ed.'s of Vinay Bhawan, Santiniketan, fill up the requirement of teachers of Work Education in the state.

With a view to organising 3-month orientation in Work Education, the Board sponsored three Work Education Training Centres in the State. The NCERT, SCERT and W.B. Board of Secondary Education organise Workshops in Work Education at Brahmananda P.G.B.T. College, Rahara from time to time.

The gigantic problem cannot obviously be solved by the Board of Secondary Education alone, nor is it its constitutional responsibility to train teachers in this particular subject. Work Experience was accepted as a compulsory "Doing Subject" in the school curriculum as a part of a National System of Education by the Kothari

Commission. As such, it is the obligatory duty of the State Government to arrange training of teachers in this subject. The best and easiest non-expensive way was to introduce Work Education, in both its theoretical and practical aspects, as a content and method subject in all Teachers' Training Colleges. Leadership in this field was given by the Post-Graduate Basic Training Colleges of the State and the *Viśwa-Bharatī* long ago. This was followed by other Universities like Kalyani, Burdwan and Jadavpur. Non creation of posts of lecturers and field-Instructors in Work Education and non-availability of equipment and monetary grants in training colleges are the reasons for the snail like progress in this field.

Research and Innovation

The present writer, as a part of his research work, made extensive tour of different parts of West Bengal to study the position and problems vis-a-vis Work Education in High Schools. Opinions from guardians, headmasters and students were sought through questionnaires specially designed for eliciting reactions to those problems. Many of them voiced grievances about the list of Work projects prescribed by the Board, some about the assessment procedure during final secondary examination. Students of Naendrapur and Purulia, two great institutions run by Ramakrishna Mission have recorded their suggestions in favour of introducing a short written test on Work Education of 20 marks, in place of viva voce, during the secondary examination - as this, in their opinion, will ensure more objectivity in assessment in as much as the Head Examiner could recheck the answer-script of a candidate aggrieved at the marks awarded to him by an examiner.

A workshop arranged by the Board at P.G.B.T. College, Rahara from 19 to 24 September, 1988 wanted to scrap through the viva voce part and recommended the introduction of a written test in Work Education at the Final Examination. The said Workshop recommended a recast of the Syllabus in Work Education in the following way

For Classes IX & X: 1. Soap making or preparation of detergent, phenyl making, fountain pen ink making. 2. Household wiring and electrical gadget repairing or Bi-cycle repairing. 3. Growing of vegetables and flowers in pots and plots or Planning and maintenance of a lawn. 4. Drawing, designing and batik printing. 5. Tailoring and needle work. 6. Elementary spinning and weaving. 7. Woodwork. 8. Book-binding and cardboard work.

For Class VIII: School co-operative. 2. Chalk and candle stick making. 3. Compost making. 4. Duster and hanger making and repairing of school furniture. 5. Cane/plastic and bamboo work. 6. Mat making. 7. Ink making for Blackboard and shoe-polishing. 8. Beautification of school surroundings.

For Class VII: 1. Puppet making. 2. Cutting (Stem), Layering and 'Gooting' making. 3. Incense stick making. 4. Roller board and Map-

stick making. 5. Leaf Work (Fan making by palm leaf) 'Kusasan' made by; 'Kush' and other leaves). —

The Board is yet to take a final decision in the matter.

●

PART : V

Appendices

●

LIST OF PARTICIPANTS

1. Shri J.M. Srivastava, Chairman
Board of Secondary Education, (RAJASTHAN) *AJMER*
2. Shri Shyam Lal, Board of Secondary Education,
(RAJASTHAN), *AJMER*.
3. Shri N.D. Batra HES(I), Officer Incharge,
S.C.E.R.T., (Haryana) *GURGAON*
4. T. Sri Rama Chandran, Deputy Director of School Education,
College Road, Madras-6(*TAMILNADU*).
5. Shri U.N. Mishra, Deputy Director (Sanskrit),
Directorate of Education, (UTTAR PRADESH) *ALLAHABAD*
6. Dr P.L. Verma, Assistant Director (Academic)
Board of Secondary Education, (Rajasthan) *AJMER*
7. Shri N.K. Chaudhari, Director, Sane Guruji Vidya Probodhini,
Khiroda, District, Jalgoan (*MAHARASHTRA*) - 425504
8. Shri Hazari Lal Sukhwai, Reader, Department of Psychological Foundation
and Vocational Education,
S.I.E.R.T., *Udaipur, (RAJASTHAN)*.
9. Shri B.K. Chandrasekaraiah, Work Experience Teacher,
Regional College of Education, Demonstration School,
MYSORE -6
10. Shri V.C. Kimothi, T.G.T. Agriculture, Demonstration School,
Regional College of Education, *AJMER (RAJASTHAN)*.
11. Shri M.K. Thirumeni, Special Officer, Work Experience Programme, State
Institute of Education, Poojapura, *TRIVANDRUM -12 (KERALA)*
12. Dr. M.P. Chhaya, Edu. Consultant, Navodaya Vidyalaya Samiti, A-39,
Kailash Colony, *New Delhi -110048*
13. Mrs. Meenakshi Mohapatra, Lecturer in Education,
Jagatsingh Pur Training College, Jagatsingh Pur (*ORISSA*)
14. Dr. P.C. Mahapatra, Professor Education(Vocational), S.C.E.R.T,
Bhubaneswar, (*ORISSA*) -751001.
15. Prof. (Dr.) Pijush Kanti Das, Director, SCERT, West Bengal, 25/3,
Ballygunge Circular Road, *CALCUTTA - 700019*.
16. Mrs. Shanti Dua, (Instructor), Incharge Department of Work Experience,
S.C.E.R.T, Solan, (*HIMACHAL PRADESH*).
17. Thiru B. Venkataramani, Principal & Assistant State Apprenticeship Adviser,
C/o Govt. Technical Higher Secondary school, *PONDICHERRY-605008*.
18. Mrs. Rajni Kumar, Chairman, Patel Education Society, Springdales School,
Pusa Road, New Delhi-110005.

19. Shri K.K. Mahadevan, General Secretary , Kerala Work Experience Teachers Association, Katlikumu, Banu Bhavan, Chempu P.O., *ERNAKULAM (KERALA)* - 698615.
20. Shri V.S. Pharande, Professor & Head, S.C.E.R.T. , Maharashtra, Sadashiv Peth, Karnataka Road, *PUNE* - 411030
21. Shri G.S. Sehgal, School Inspector (phy.), Education Deptt., M.C. Delhu, Najafgarh Zone, *New Delhu*(Now in SCERT , Delhi Admn.)
22. Prof. N.P. Banerjee, Professor in Education, Vinaya Bhavan, Santiniketan, *West Bengal*-731235.
23. Shri Pijush Kanti Chatterjee, Principal, Brahmananda P.G.B.T. College, Rama Krishna Mission, P.O. Rahara, N.24 Parganas, Pin. 743186.
24. Mrs. Kamla Johni, Professor & Head, Department of Vocational Education, S C E R.T, M.P , Jahangrabad, Bhopal, (*MADHYA PRADESH*) - 462008.
25. Shri P Sudershan Rao, Professor & Head, Deptt. of Vocational Education, S.C.E.R.T , *Hyderabad*-500001 (*ANDHRA PARDESH*)
26. Dr I.V. Radha Krishna Murty, Professor, Curriculum and Textbooks Department, S.C.E.R.T , *Hyderabad*-500001(*A.P*)
27. Smt. S. Prema Latha, Principal, Mahatma Montessory Matriculation Hr. Sec School, K.K Nagar, *Madurai*-625020
28. Shri Mohan Singh Wadhwa, Subject Matter Specialist, Office of Director, Public Instruction (Schools), (*PUNJAB*), *CHANDIGARH*
29. Shri S.M. Bana, Reader, State Institute of Education, Ahmedabad, (*GUJARAT*)
30. Shri Prem Narain Rusia, Retired Joint Director of Education, Madhya Pradesh, Tal Darwaza, Tikamgarh (*MADHYA PRADESH*)

NATIONAL COUNCIL OF EDUCATIONAL RESEARCH & TRAINING

Sri Aurobindo Marg, New Delhi-110016.

31. Dr. K. Gopalan, Director, N.C.E.R.T New Delhi-110016.
32. Shri T.S. Sarma, Public Relation Officer, N.C.E.R.T. New Delhi-110016.
33. Miss Meera Kant, Assistant Public Relation Officer, N.C.E.R.T., New Delhi-110016.

Department of Vocationalization of Education

34. Dr. (Mrs.) S.P. Patel, Professor of Education
35. Shri N.P. Bhattacharya, Reader in Technology
36. Shri G. Guru, Reader in Health Education
37. Dr. A.P. Verma, Reader in Technology
38. Dr. (Mrs.) Bimla Verma, Reader in Audio-Visual Education
39. Dr. A.K. Dhote, Reader in Agriculture
40. DR. D.K. Vaid, Reader in Commerce

41. Shri Sachchidananda Ray, Lecturer in Technology
42. Dr. Arun K. Mishra, Professor & Head - *Programme Director*
43. Dr M. Sen Gupta, Reader in Education - *Programme Coordinator*

Assistance:

44. Shri S. Makhijani, A.P.C.
45. Shri K.D. Sharma, S.O
46. Shri L.D. Kalra, P A
47. Shri R. S. Ahluwalia, U.D.C.
48. Mrs. Sushma Gupta, Stenographer
49. Miss Poonam Sharma, Stenographer
50. Shri S.D. Sangal, L.D.C.
51. Shri Jaikishan Sami, L.D.C.
52. Mrs Sarasan K Ratna, L.D.C.
53. Shri S. Shore, L.D.C.
54. Shri Shashi Prakash, L.D.C.
55. Shri Intzar Beg, Daftry
56. Shri Gulab Singh, Driver
57. Shri Nek Ram, Peon
58. Shri Bihari Lal, Peon

COMPOSITION OF GROUPS

Appendix II

GROUP I

1. Shri N.K. Chaudhary - Group Leader
2. Smt S. Prema Latha - Rapporteur
3. Shri V S. Pharande - Member
4. Shri K.K. Mahadevan - "
5. Shri S.M. Baria - "
6. Shri M.K. Thurumeni - "
7. Shri B. Venkataramani - "
8. Smt. Shanti Dua - "
9. Shri U.N. Mishra - "
10. Shri N.D. Batra - "
11. Shri Hazari Lal Sukhwal - "
12. Prof. (Dr.) P.K. Das - "
13. Shri V.C. Kimothi - "

GROUP II

1. Shri J.M. Srivastava - Group Leader
2. Shri P.K. Chatterjee - Rapporteur

3.	Shri P.N. Rusia -	Member
4.	T. Shri Rama Chandran -	"
5.	Shri B.K. Chandrasekaraiah-	"
6.	Dr. M.P.Chhaya -	"
7.	Mrs. Meenakshi Mohapatra -	"
8.	Dr. P.C. Mahapatra -	"
9.	Shri G.S. Sehgal -	"
10.	Mrs. Kamla Johri -	"
11.	Shri P. Sudarshan Rao -	"
12.	Dr. I.V. Radha Krishna Murty -	"
13.	Shri Mohan Singh Wadhwa -	"
14.	Prof N.P. Banerjee -	"

Composition of Suggested Committees

The National level Committee for Work Experience and Vocationalization of education will be responsible for policy making and for raising funds for the effective implementation of the activities.

The state level committee shall consist of the following members:

1. Director of the Secondary School Education
2. Director of the Primary School Education
3. Director of SCERT/Principal SIE
4. Principal of a Primary School Teacher Training College
5. Principal of a Secondary School Teacher Training College
6. Work Experience teacher from a primary school
7. Work Experience teacher from a secondary school
8. Headmaster of a primary school
9. Headmaster of a secondary school
10. Two educationists related to Work Experience
11. Director of Technical Education
12. Representative of State Board of secondary education
13. Director of Industries
14. Director of Vocational Education and Training
15. One member form NCERT
16. Director of Agriculture
17. Two co-opted members/invitees from the community.

The District level committee shall be constituted with the following members:

1. District Educational Officer (Secondary level)
2. District Educational Officer (Primary level)
3. District Educational Officer (Adult Education)
4. District Vocational Officer
5. Director of Extension services centre
6. Principal of Primary School Teacher Training College
7. Principal of Secondary School Teacher Training College.

8. Principal of the DIET
9. Work Experience teacher from primary school/upper primary school
10. Work Experience teacher from secondary school
11. Educationist
12. Officer - cottage industries
13. Block Development Officer
14. Principal/Headmaster of a secondary school.

' *The school level committee shall have the Headmaster as the Chairman. Senior teacher under Work Experience shall be the convenor. One member can be selected from the parent teacher association. All the teachers who are teaching Work Experience can be the members. One of the school managing committee members can also be the member.*

The state and the District level Boards of Education shall give the necessary guidelines and assist in providing materials and kits, orientation and training of teachers as well as supervising and monitoring the programmes. A lot of responsibility lies on the schools to use their ingenuity, infrastructure and other means at their disposal to plan, organise and implement the programme.

.

●